

Exciting career of an obscure mining entrepreneur: David Ziman (1862-1920)

By BRIAN R. HILL

When 81 years of quartz mining at Reefton came to an end in 1951 the Reefton gold field had produced more than two million ounces of gold,¹ which was about 8 per cent of New Zealand's total output at that time.² Reefton was New Zealand's second biggest goldfield, but had a chequered record. With initial bonanza ore grades yielding spectacular results, the field had boomed wildly for its first ten years after the discovery of the quartz reefs in 1872, but then it was in a slump for 13 years and severely depressed until 1895.³ That year a dramatic change in its fortunes occurred through the actions of David Ziman, a 32-year-old mining investor from South Africa.

Ziman first came to Reefton in May 1895 when holidaying in New Zealand, with his wife and child, on a trip from Johannesburg to visit his wife's family in Wellington. He recognised the field's potential and the opportunity of a promoter's profit that this posed.⁴ Like the New Zealand economy that was then in depression, Reefton was in the 13th year of a prolonged downturn despite the favourable economic conditions for goldmining caused through price deflation.⁵ The slump in Reefton was in sharp contrast to the expansion then being experienced in most gold mining centres of the world at that time, this being driven by the great surge in British investment in overseas gold mining. However, 1895 was to be a turning point for Reefton, as Ziman gained control of most of the local mines and instituted a revolutionary restructuring of the local industry which in early 1896 modernised the mines and revitalised the industry.⁶

David Ziman – early days

Who was David Ziman, and how did he become to be involved in Reefton?⁷ He was born in a small shtetl, or Jewish village, in Czarist Poland in 1862. Probably half of all the Jews in the world then lived in Poland.⁸ However, restrictive czarist policy at the time was very harsh on the Jews and because of the oppression they suffered there was mass migration of Jews from Russia in the 19th century. Many young men fled to avoid conscription into the Czar's army where Jews were severely discriminated against.

David Ziman and his brothers being among them.

In 1875 Ziman joined an older brother in London, and although just entering his teens he worked there as a street vendor. It was during this period that he learned English, although he always spoke with an accent, as his mother tongue was Yiddish. In 1877 David Ziman emigrated to the Cape of Good Hope Colony and despite his youth he soon became a successful trader in ostrich feathers, at that time an expensive fashion accessory used to adorn European women's hats.⁹

Figure 1: *David Ziman in 1896*



Note: Artist anonymous - Sketched in New Zealand.

In 1886 the Witwatersrand gold field, which was to become the greatest in the world was discovered in the Boer Republic of South Africa. Eager for any opportunity for advancement, and seeking fast profits, Ziman was quickly at the scene on the Rand.

By 1889 some 450 companies with a nominal capital of £11 million had been floated there,¹⁰ and the shares in these companies were initially traded in the street in Johannesburg, the new city that sprang up and rapidly developed as the gold field centre. The quick-witted Ziman was an adept trader of shares in the frenzied street market and he was soon acting as a dealer transacting share trades for clients. Aged just 25, Ziman was a founding broker of the Johannesburg Stock Exchange when it was formed in January, 1888.¹¹ As the gold output of the Rand companies soared spectacularly, British investors bought some £10 million of shares from Johannesburg by 1889.¹² Ziman's brokerage firm was so busy that he employed shifts of clerks operating around the clock to process transactions, and he quickly amassed a considerable fortune.¹³ He also became involved in company promotion and was a director of two Rand companies.¹⁴

When the Rand share market crashed in a bank credit squeeze in 1889 wiping out several hundred brokers in Johannesburg, David Ziman who was among their number was 'hammered' from the Exchange and bankrupted.¹⁵ With deft share trading and adroit real estate dealings undertaken clandestinely in his fiance's name,¹⁶ Ziman was soon able to restore his wealth and discharge his bankruptcy.¹⁷ In early 1895 he took his wife, a New Zealander, on a long-promised holiday there to visit her family in Wellington.

Reefton ventures

In Wellington Ziman met the Prime Minister, Richard Seddon, who was a fervent advocate of the development of New Zealand's mining industry.¹⁸ He recommended that the rich mining investor from Johannesburg would find it fruitful to investigate investment in the gold mining industry on the West Coast of the South Island. Ever alert for opportunities for profit, Ziman accepted Seddon's suggestion with alacrity; the family holiday in Wellington was deferred, and Ziman headed for Reefton. There, Ziman found the industry languishing in what had been a prolonged slump. He perceived the poor management of the mines and the antiquated, inefficient plants.¹⁹ Because of management resistance to new ideas, Reefton was suffering technological inertia, and advances in technology and metallurgical innovation had bypassed the local industry. Although Ziman had no technical qualifications, and indeed little formal education, he was not only very analytical but he had an insightful understanding of the key element in complex mining situations. Ziman was not only able to identify the

problems affecting the Reefton mines, but more importantly he had the perspicacity to be able to discern the solutions to these problems, and also the drive to implement them. Although the Reefton companies had paid dividends totalling nearly half a million pounds by 1895, their share prices were depressed and the entire field was then capitalised on the Reefton stock exchange at only £42,600. Ziman devised a bold plan to gain control of the Reefton mines with a series of short term options to allow him time to recapitalise them by floating them in London. In doing so he expected to make a substantial promoter's profit.

Ziman skilfully negotiated six month options to buy the mines of five of the local companies by offering substantial non-refundable deposits and option exercise prices that were several times the Reefton share market capitalisation of the companies owning these mines. Ziman's rationale was that share prices in Reefton were depressed by the local slump, while the current Kaffir Circus gold share boom boosted the prices of gold mining properties on the London Stock Exchange.²⁰ He intended to profit by capitalising on this differential in value.

With his options in place, Ziman offered his project to one of the world's leading financial groups, N.M. Rothschild and Sons, in London.²¹ Ziman's proposal envisaged the floating of a strong London company that would have sufficient capital not only to exercise the mine options, but also to improve and modernise the mines, and to equip and develop them for expanded production. Then a series of subsidiary or satellite companies would be floated to operate the mines. This would establish a substantial mining house headquartered in London, but with its operations in New Zealand along the lines of those great London mining houses which were so successful on the Rand. Such a project would require not less than a quarter of a million pounds in capital - £76,000 to exercise the options, £22,000 to reimburse Ziman his outlays, and £150,000 to develop, modernise and re-equip the mines. Ziman sought a promoter's interest of 50,000 free £1 shares in the company, equivalent to more than \$5 million today, for his mine options.

Unfortunately for Ziman the week he mailed his proposal to the Rothschilds in September 1895, the Kaffir Circus share boom crashed. Ziman rushed to London, where he encountered further difficulties as the Jameson Raid at the end of December 1895 caused panic in Johannesburg and the battered London gold share market collapsed.²² As £120 million was wiped off the market value of the Rand industry²³ the London share market premium for gold mines that Ziman was relying on evaporated, and with it

any chance of him being able to make a promoter's profit. At the beginning of 1896 Ziman's whole plan appeared to be in tatters; his options were due to expire in only a few weeks' time - on 29th January. Ziman now faced the possibility of total loss in his project, because he had insufficient capital to exercise his mine options, which would lapse, thus leading to the forfeit of all his option deposits.

However one outstanding characteristic of Ziman was his resilience in disaster. He quickly proposed an amended deal to the Rothschilds which they found attractive because the Australian expert they had appointed to investigate the Reefton mines that Ziman offered had reported favourably on their potential.²⁴ In his new offer Ziman asked for a Founder's Share in the new company for his options.²⁵ Under this proposal Ziman would receive no vendor or free promoter's interest, but his Founder's Share would be paid 25 per cent of the new company's profit each year once dividends paid equalled the amount of capital subscribed to the company.

The Rothschilds then agreed to participate in Ziman's venture through their Exploration Company,²⁶ and to sponsor the formation of a company and arrange for £250,000 in capital to be invested in it. Dividends paid would have to total £250,000 before Ziman's Founders Share would benefit. This capital, equivalent to more than \$25 million today, was raised without issuing a prospectus, a not unusual method of company formation at that time.²⁷ It was subscribed in-house by a handful of people and institutions, including Rothschild's Exploration Company and several other investment banks, and Ziman and some of his former associates from Johannesburg.²⁸

Because of the imminence of the options' expiry date, negotiations were conducted in such a rush that the £250,000 was subscribed before a name for the company had been selected.²⁹ This turned out to be Consolidated Gold Fields of New Zealand Ltd, emulating the title of the very successful Consolidated Gold Fields of South Africa Ltd which the Rothschilds had floated with Cecil Rhodes.³⁰ The frantic scramble to finalise the arrangement was carried on to New Zealand where disaster was narrowly averted when Ziman's mine options were exercised on the very last day of the option period after business hours on 29th January, just before the midnight deadline for the options' expiry.

Ziman's company Consolidated Gold Fields of New Zealand Ltd was formed with a strong board including international mining experts, representatives of the Rothschilds, an Earl, and a knight of the realm, and David Ziman.³¹ This was something of a notable achievement for a former East End barrow boy. Ziman's successful

promotion of Consolidated Gold Fields of New Zealand Ltd and the involvement of the highly regarded House of Rothschilds in the company alerted others to the potential of gold mining in New Zealand, and a swarm of promoters from London and Johannesburg descended upon New Zealand hoping to emulate Ziman's promotional success. This created a rush for mining properties in New Zealand and a gold mining investment boom there in 1896. However, none of the 160 new companies promoted turned out to be as successful as Ziman's.

Figure 2: The Progress Treatment Plant



Source: Courtesy, Darrell Latham Collection, Reefton.

Notes: The Progress treatment plant, erected in 1898 by Progress Mines of New Zealand Ltd, a satellite company in David Ziman's Consolidated Gold Fields of New Zealand Ltd group. This mill treated ore from the amalgamated Globe and Progress mines, and several other mines operated by the group. Note the pylons of the flying fox, or aerial tramway, to the right on the hillside behind the mill, which delivered ore to the plant from the Globe-Progress mine which was located some 1½ kilometres away.

Consolidated Gold Fields of New Zealand Ltd sought the technical management it needed to modernise its Reefton's mines from the Rocky Mountain mining camps of USA.³² Under this American management Ziman's company energetically set about developing the Reefton mines.³³ The company introduced and innovated the latest technology and methods, and introduced more powerful air compressors and rock drills. Several contiguous mines were amalgamated for more efficient operation, and modern treatment plants were erected to handle the ore from several nearby mines in order to reduce costs by achieving economies of scale with greatly increased rates of throughput. The output of the Reefton mines soon soared, and Reefton entered a period of

prosperity.³⁴

Ziman's companies paid regular dividends in their first fifteen years or so, as they were able to mitigate cost increases due to domestic price inflation with the introduction of new technology and productivity improvements. The price of gold remained fixed then at £4/4/11½d an ounce,³⁵ and World War I inflation of costs ravaged the company's profits as consumer prices in New Zealand increased by two-thirds from 1914 to 1919. Although Ziman was then no longer involved, his companies kept mining operations going but failed to pay any dividends for two decades until their fortunes recovered with the deflation of costs and increases in the gold price in the 1930s. With the wartime inflation of costs in the Second World War, dividends ended in the 1940s. The companies ceased operating when inflation closed down the New Zealand quartz gold mining industry in 1951.

In retrospect – highs and lows

With this impressive record of 55 years of continuous operation by the companies he formed, it is somewhat surprising that David Ziman is now almost unknown and forgotten in New Zealand.³⁶ Although something of a dynamo in getting things done, Ziman had a very quiet demeanour, but he also had a certain charisma that commanded respect. Ziman was a diminutive man, standing only an inch or two over five-feet tall. He was known - fondly to his many friends and admirers and pejoratively to his enemies and detractors alike - as 'The Little Man.'³⁷

Ziman's activities in New Zealand were not confined to Consolidated Gold Fields of New Zealand Ltd, as he was involved in other projects too. Seeking any way to grow the Consolidated company to enhance the value of his Founder's Share, in 1909 Ziman plunged the company into oil exploration in New Zealand, successfully attracting the prestigious Royal Dutch Shell Company as the main investor in his oil venture spin-off, Kotuku Oil Syndicate Ltd.³⁸

Back in 1906, Ziman's company had acquired the recently discovered Birthday reef near Reefton and established the Blackwater Mine.³⁹ In the early stages of the development of this major mine, Ziman postulated that the Birthday reef was even bigger than thought, and more importantly, that it was plunging to the north, and that at depth it would enter the neighbouring Prohibition lease which had been pegged on the mine's northern boundary by a local syndicate. This notion was derided by mine management who believed that the Birthday reef was the usual lenticular-shaped ore-

body which would be entirely contained within the company's existing lease [See the mine sections explaining Ziman's theory in Figures 4 and 4A on page ??]. After a bitter dispute, an option was arranged over the Prohibition lease. Shallow exploration of the Prohibition failed to disclose any ore, which should not have been unexpected considering that if the Blackwater mine's reef did enter the Prohibition lease it would be at considerable depth.⁴⁰ Despite Ziman's strenuous objections the company dropped its Prohibition option, and, after unsuccessfully pleading with the company to renew it, Ziman then arranged an option on the Prohibition for himself.

Figure 3: At the Blackwater Mine, 1909. 'The Little Man' David Ziman, fourth from the right, about to take several journalists and sharebrokers underground at the Blackwater mine in 1909. Note the candles.



Source: Courtesy Darell Latham Collection.

When a prolonged industrial dispute shut down the Reefton mines for nearly eight months in 1912, the group's share prices tumbled as dividends were passed. Ziman, who had borrowed heavily against these shares as security, teetered on the edge of bankruptcy again. Taking advantage of his parlous financial situation, the directors of Consolidated Gold Fields of New Zealand Ltd acquired his Founders Share for the

company and forced him off the Board.⁴¹ In 1914, Ziman took Consolidated Gold Fields of New Zealand Ltd to court and was awarded £12,000, a great sum in those days, but the verdict was reversed on appeal.⁴² Always unflinchingly indomitable in the face of any setback, Ziman appealed and fought this decision all the way to the House of Lords, but he was unsuccessful.⁴³

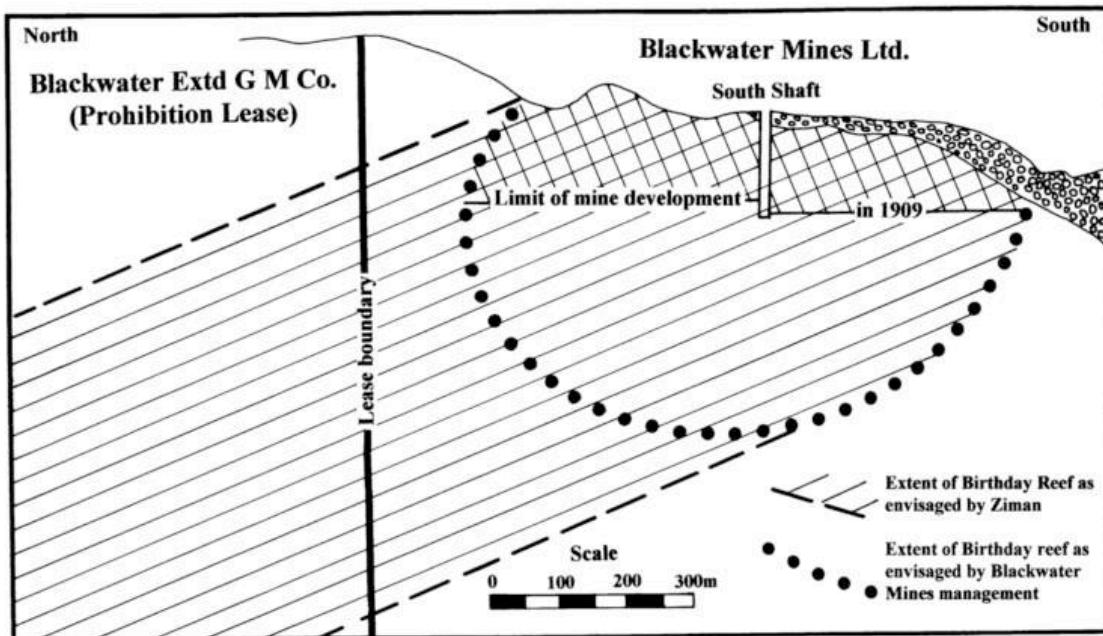
Ziman's career was continually marked by volatile extremes. He knew the heights of success and great wealth, and also the depths of failure and bankruptcy, but no matter how desperate his situation, he always rose to battle on. Following his legal setback, Ziman spent the last years of his life striving to prove his disputed assertion that the Blackwater mine's ore body ran into his Prohibition lease at depth. To prove this would require substantial capital to finance the sinking of a very deep exploratory shaft, and with the wartime inflation of costs and the consequent lack of investor interest in gold mining, 1915 was not a propitious time to float a company for such a speculative venture. However, exhibiting his usual pertinacity, Ziman - always the consummate promoter - was successful in arranging the finance in New Zealand for a syndicate which valiantly began sinking a shaft to test his theory. Unbeknown at that time, this shaft would turn out to be the deepest ever to be sunk in New Zealand.⁴⁴ Despite Ziman later being able to arrange some government loans and subsidies for his venture, the project eventually ran out of funds and ground to a halt with the shaft at the tremendous depth of 1,360 feet (412 metres), and still no ore body.

Ziman, who suffered from diabetes, died in Hokitika in 1920. He had been the driving force behind the Prohibition venture, and with his death the syndicate floundered and soon collapsed. The Blackwater mine company which had previously disparaged Ziman's Prohibition theory and spurned their own Prohibition option, later acquired the Prohibition lease cheaply, mainly by accepting liability for the government loans on it. The Blackwater mine then continued sinking Ziman's shaft down another 200 feet (61 metres), and intersected the Birthday reef which was plunging out of their company's mine lease into the Prohibition lease just as Ziman had always predicted.

The Blackwater company then turned their mine's main shaft into a ventilation shaft and utilised Ziman's Prohibition shaft as their mine's main ore-haulage shaft because the bulk of the ore would thereafter be produced from the Prohibition lease (See Fig. 4A). A new treatment plant was erected at the Prohibition shaft replacing the Blackwater mine's old mill that was now 1½ kilometres away to the south. Some 274,000 ounces of gold, 37 per cent of the Blackwater mine's total production of

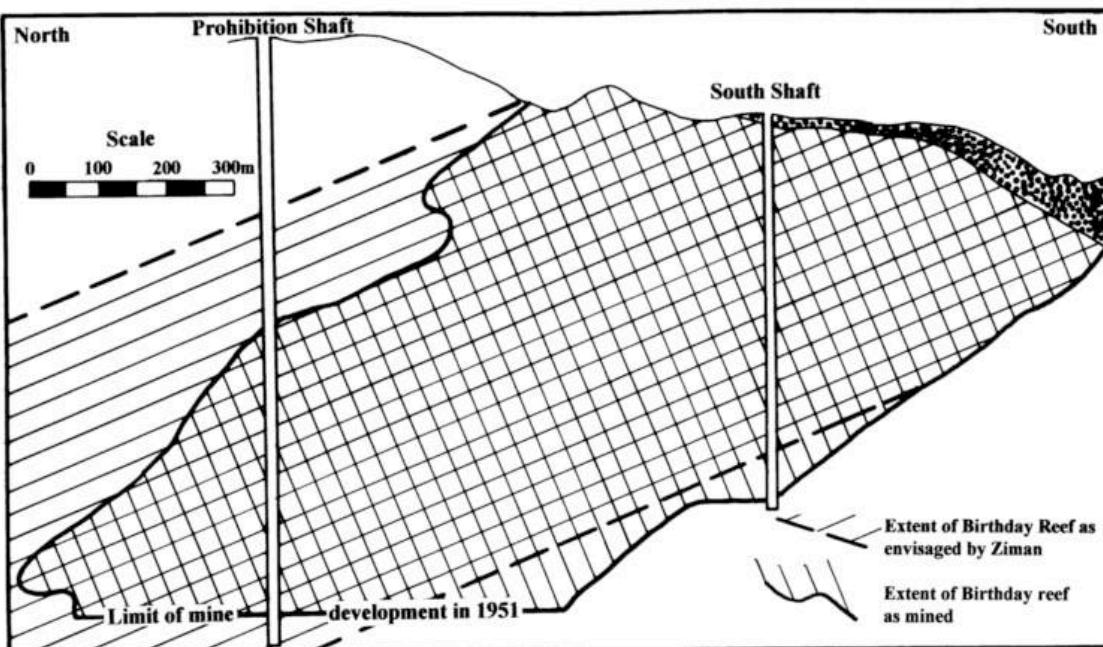
740,000 ounces was produced from ore hauled up Ziman's shaft.

Figure 4: Birthday reef, Blackwater mine section, 1909.



Source: Author's interpretation of 1909 correspondence between Ziman and Consolidated Gold fields of New Zealand Ltd head office in London, and also between mine management and head office, in Consolidated Gold Fields of New Zealand Ltd Collection in Alexander Turnbull Library, Wellington.

Figure 4A: Birthday reef, Blackwater mine section, 1951.



Source: 'Extent of Birthday reef as mined' from 'Figure 29. Longitudinal section through the Blackwater mine,' in J. M. Barry, *The History & Mineral Resources of the Reefton Goldfield*, Wellington 1993, p 52.

Figure 4 shows a Longitudinal section of the Blackwater mine as it was in 1909 when Ziman postulated that the Birthday reef was plunging to the north and would pass out of the company's ground and enter the Prohibition lease then owned by a syndicate, the Blackwater Extended GM Co, at depth. The dashed lines outlining the lined area with lines sloping to the left depicts Ziman's radical notion. This should be compared with the outline of the ore body as it was eventually mined, which is depicted below in Figure 4A. The dotted line on the 1909 section outlines the dimensions of the lenticular-shaped ore body entirely contained within the Blackwater company's mine lease which the Blackwater mine management and technical staff expected at that time. This explains why they did not accept Ziman's theory, and why initially they were not concerned about gaining control of the Prohibition lease as Ziman urged.

Figure 4A shows the Blackwater mine as the ore body was eventually mined by the time the mine closed in 1951. This provides impressive confirmation of Ziman's vision: the area hatched with lines sloping to the right depicts the extracted ore and the lines sloping to the left depict Ziman's 1909 theoretical ore body. In 1915-1920 Ziman attempted to sink his Prohibition shaft deep enough to prove his assertion that the Birthday reef plunged into the Prohibition lease, which he had acquired. After his death the Blackwater Mine company eventually acquired Ziman's Prohibition shaft, which he had sunk to 1,360 feet (415 metres), and continued the shaft down another 200 feet (61 metres) to encounter the Birthday reef entering the Prohibition lease as Ziman had always predicted. The Prohibition shaft then became the Blackwater mine's ore-haulage shaft for the last 17 years of the mine's life.

Although vindication of David Ziman's dream came only after his death, the modern treatment plant and giant production headframe which loomed over his Prohibition shaft, at what was New Zealand's second biggest gold-producing mine, was a fitting epitaph to David Ziman's vision and mining genius.

Endnotes

¹ J.M. Barry, *The History and Mineral Resources of the Reefton Goldfield. Resource Information Report 15*, Wellington, 1993, p. 2. The two million ounces would be worth more than two-and-a-half billion dollars at today's gold prices.

² Gold production at Reefton entered a second phase in 2005 when Oceana Ltd reopened the Globe-Progress mine as an open pit mine 85 years after it closed.

³ J.A. Feary, 'Reefton and Mining, 1870-1948', MA thesis, Victoria University, Wellington, 1949, p. 34.

⁴ Brian R. Hill, ' "The Little Man" David Ziman, mining giant: the biography of an entrepreneur', PhD thesis, Flinders University, Adelaide 2000, pp. 68-80.

⁵ See Brian R. Hill, 'Explaining the Reefton Paradox,' *Journal of Australasian Mining History*, vol. II, 2004, pp. 159-169.

⁶ For production tonnages and value of output of gold at Reefton each year before and after 1896, see 'Appendix I. Reefton Returns' in Hill, *idem*, p 167.

⁷ Despite the enormous impact of his activities on the gold mining industry at Reefton which was New Zealand's second biggest gold field, and consequently on the New Zealand economy, Ziman was not mentioned in *Who's Who In New Zealand* nor in the *Dictionary of New Zealand Biography*. He is very briefly referred to in J.H.M. Salmon's scholarly, *A History of Goldmining in New Zealand*, Wellington, 1963, p. 220, but Professor Salmon seems to assume that Ziman was sent as the agent of powerful London capital interests, and is unaware that Ziman was then holidaying in New Zealand and that he undertook his Reefton venture on his own initiative.

⁸ Harold Pollins, 'The Jews,' *History Today*, vol. XXXV, 1985, p. 9; and *Encyclopaedia Judaica*, Jerusalem, 1971, p. 370.

⁹ Darrell Latham, *The Golden Reefs. An Account of the Great Days of Quartz-Mining at Reefton, Waiuta and the Lyell*, Christchurch, 1984, pp. 389-90; and Anon., 'Gold Mining Days. David Ziman: Unique Figure on West Coast. Fortune made and spent in a few years', *Greymouth Star*, Greymouth, 14 January 1947.

¹⁰ Eric Rosenthal, *Gold! Gold! Gold! The Johannesburg Gold Rush*, London 1970, p. 183.

¹¹ Harry Klein, *The Story of the Johannesburg Stock Exchange 1887-1947*, Johannesburg 1948, p. 19; Eric Rosenthal, *On 'Change Through The Years. A History of Share Dealing in South Africa*, Johannesburg, n.d., p. 145.

¹² J.W. McCarty, 'British Investment in Overseas Mining', unpub. PhD thesis, University of Cambridge, 1960, p. 64.

¹³ W.F. Heinz, 'A Leader in Quartz Mining: Men of the West XV,' *The Press*, Christchurch, 1 February 1975.

¹⁴ Blanche Gold Mining Co. Ltd. and Steyn Estate Gold Mining Co. Ltd, which had paid up capital of £140,000. See, Charles Sydney Goldmann, *The Financial, Statistical and General History of the Gold & Other Companies of Witwatersrand, South Africa*, London 1892, pp. 21, 236.

¹⁵ The rostrum in the Stock Exchange was struck with an auctioneer's hammer to call attention and the name of a defaulting broker who was unable to meet his obligations was called out to notify the trading floor of his suspension from trading, or expulsion from the Exchange. Rosenthal, *op cit*, p. 190, says that in the market collapse 169 sharebrokers were 'hammered' in one day alone.

¹⁶ Ziman engaged in this furtive arrangement because his creditors would have seized any assets acquired in his name while he was an undischarged bankrupt.

¹⁷ His son later averred that his mother had told him that Ziman made a fortune of £250,000, and in obtaining his discharge from bankruptcy Ziman had paid off his old debts in full, repaying 20 shillings in the pound. See, Herbert Ziman, London, to Darrell Latham, Reefton, 5 February 1981, Darrell Latham Papers. The quarter of a million pounds seems exaggerated: my analysis of Ziman's subsequent financial dealings indicates that he probably made about £50,000. This is equivalent to more than \$5 million today.

¹⁸ Seddon always maintained an unshakeable faith in the wealth of New Zealand's gold potential: he frequently proclaimed his optimism concerning 'the immense treasures which are distributed throughout the length and breadth of this land, but hidden from the eyes of man in the bowels of the earth'. See, Salmon, *A History of Goldmining in New Zealand*, p. 213.

¹⁹ The antiquated treatment plants in Reefton were so inefficient that they could recover only half the gold in the ore treated even though cyanidation, which was invented in 1887, had been introduced to New Zealand in 1889. By 1895 it was estimated that although the Reefton mines had produced gold to the value of £1,823,927, 'gold to an equal value has been wasted - that is, lost in the process of extraction ... carried away in the streams'. See, A.H. Gordon, 'Supplementary Report. Quartz-Mining Reefton District, Appendices to the Journal of the House of Representatives [hereafter AJHR] C-3c Papers, *Mines Statement* 1896, p. 1.

²⁰ That section of the London Stock Exchange dealing in Rand shares during the gold share boom was known as the Kaffir Circus. See, David Kynaston, *The City of London. Golden Years, 1890-1914*, London, 1995, p. 105.

²¹ See Niall Ferguson, *The World's Banker: the History of the House of Rothschilds*, London, 1998.

²² Geoffrey Blainey, 'Lost Causes of the Jameson Raid,' *Economic History Review*, vol. XVIII: 2, 1965, pp. 350-366.

²³ 'Quartz Mining,' AJHR C-3 Papers, *Mines Statement*, Wellington 1896, p. 29.

²⁴ The expert the Rothschilds commissioned was E.J. Dunn FGS, the director of the Geological Survey of Victoria, and the author in 1892 of a widely remarked report on Bendigo. Dunn's Reefton report with the

financial considerations excised was subsequently published in the 1896 *New Zealand Mines Statements*. See, AJHR, C-3 Papers, *Mines Statements* 1896, pp. 97-102.

²⁵Ziman knew that the Rothschilds had a fondness for Founders Shares. When their Exploration Company was formed the original founders were entitled to half the surplus profit each year after 10 per cent had been distributed as dividends. The Rothschilds had also been involved with Cecil Rhodes in the flotation of Consolidated Gold Fields of South Africa Ltd, and Rhodes and his partner Rudd had been issued with founders' shares that entitled them to 60 per cent of that company's profits. Ziman cleverly modelled his Founder's Share proposal along the lines of the founder's share which the firm of Wernher, Beit had in the very successful Rand Mines Ltd which the Rothschilds had also sponsored: this entitled Beit's firm to 25 per cent of the profits once the total subscribed capital had been repaid in the form of dividends.

²⁶ See Robert Vicat Turrell and Jean-Jacques van Helten, 'The Rothschilds, the Exploration Company and Mining Finance', *Business History*, vol. XXVIII, 1986, p. 188.

²⁷ According to McCarthy, 'British Investment in Overseas Mining,' p. 259, of the total 9,221 overseas mining companies registered in London from 1880 to 1904, only 1,648 issued prospectuses.

²⁸ Some 60 per cent of the capital was provided by Rothschild's Exploration Company and two of that company's associates - investment banks Antony Gibbs & Son and H. Mosenthal & Son - and the balance by Ziman and some former associates from the Rand. These included the Anglian Mining and Finance Company, and investment banker Ludwig Ehrlich who invested £75,000 in the company by paying a premium of 10s a share for 50,000 £1 shares in order to get that number.

²⁹ This was not as extraordinary as it might sound. When Rand Mines Ltd was formed, the £300,000 capital of that company had also been subscribed before a name had been decided, according to A.P. Cartwright, *The Corner House. The Early History of Johannesburg*, London, 1965, p. 130.

³⁰ Rhodes' company was actually originally styled The Gold Fields of South Africa Ltd. It too had a capital of £250,000. When it arranged a £1,250,000 merger with four other Rand companies in 1893 its name was changed to Consolidated Gold Fields of South Africa Ltd. In 1895 it made a profit of more than £2 million for the year: it was the first company in the world to achieve this milestone: that year it paid a dividend of 125 per cent on its expanded capital. The name undeniably had a certain market cachet and elan so it is understandable why the Rothschilds, with their successful involvement in Rhodes' company, favoured a similar name for the New Zealand venture in which they participated.

³¹ The Rothschilds nominated two of the seven directors: the Exploration Company managing director, Lukach, and the Rt. Hon. Anthony Midway Julian Fane the 13th Earl of Westmorland. Others were George Jones and Arthur Foster, the chairman and manager respectively of the Anglian Mining & Investment Co. Ltd, and another Rand acquaintance of Ziman's, investment banker Ludwig Ehrlich. The chairman was Sir Westby Perceval, a former MP from Christchurch who was the New Zealand Agent General in London, and a director of Waihi Gold Mining Co Ltd, the biggest gold producer in New Zealand. Ziman was appointed to the unsalaried titular role of managing director.

³² By then, British overseas mining companies no longer looked to Cornwall for their managers, but to America. Herbert Hoover in his, 'The training of the mining engineer', *Science*, vol. XX, 1904, p. 716, pointed out that although at that time British-owned mines produced 75 per cent of the world's gold output, the major part of the industry was then under the direction of American engineers.

³³ Ziman took up residence in Reefton as managing director of Consolidated Gold Fields of New Zealand Ltd, moving his wife and two daughters there. A second daughter was born in Wellington while he was negotiating with the Rothschilds in London.

³⁴ See 'Appendix I, Reefton Returns' in Hill, 'Explaining the Reefton Paradox', p. 167.

³⁵ Leo Katzen, *Gold and the South African Economy*, Cape Town 1964, p. 2. This was the price of fine gold, or 24 carats. According to 'Mines Minister's Statement,' AJHR C-2 Papers, *Mines Statements*, Wellington 1891, p. 8, Reefton gold was 1.424 carats above 22 carats, or 976 fine, and it averaged £4/2/10^{3/4}d an ounce.

³⁶ Ziman is still remembered in Reefton: the name of the geriatric wing of the little hospital in Reefton is the Ziman Building, commemorating a donation of £500 to the hospital by Ziman in 1896. This sum was then equivalent to nearly two years' wages for a miner.

³⁷ Latham, *The Golden Reefs*, pp. 392, 396.

³⁸ Despite early promise and tantalising oil shows, the holes drilled by the Syndicate were unsuccessful.

³⁹ See Brian R. Hill, 'A Reinterpretation of the Acquisition of the Blackwater gold mine,' *Journal of Australasian Mining History*, vol. IV, 2006, pp. 156-82; and John Hillman, 'Observations on the History of the Blackwater', *Journal of Australasian Mining History*, vol. V, 2007, pp. 171-75.

⁴⁰ The subsequently recognised Prohibition fault controls the ore body's northern extremity, and the faulted offset of the reef to the north of this fault has never been located.

⁴¹ A Consolidated Gold Fields of New Zealand Ltd satellite company Progress Mines Ltd acquired Ziman's Founder's Share in 1913 by issuing him £50,000 of Progress Mines debentures with a 5 per cent *p.a.* coupon that was guaranteed by the parent company, and convertible into the shares of Blackwater Mines Ltd, another satellite company in the group, at 22s 6d per share. See, 'Directors' Report', Progress Mines of New Zealand Ltd, *Annual Report* 1913. Progress Mines Ltd then sold its rights attached to the Founder's Share to Consolidated Gold Fields of New Zealand Ltd for £57,138. See, *New Zealand Gold Mining Year Book*, Wellington 1934, p. 38. The receipt of this cash injection enabled Progress Mines to pay off its indebtedness to the Consolidated company in something of a round robin transaction.

⁴² 'The Law Courts. Yesterday's Hearings of Commercial Cases. Wealth of Nations Mine. Jury Finds Against The New Zealand Goldfields. Damages £12,000', *Financial Times*, London, 30 July 1914.

⁴³ 'Chairman's Address,' Consolidated Gold Fields of New Zealand Ltd, *Annual Report*, 1916.

⁴⁴ The Blackwater shaft would eventually be sunk 841 metres. With a depth of 2,759 feet according to Salmon, *A History of Goldmining in New Zealand*, p. 225, it was the deepest shaft in New Zealand, being more than a half a mile deep.