The final years for Renison Goldfields Consolidated (RGC) involved a combination of concerted efforts to grow the business and a number of expansive corporate activities. These were overseen by managing director, Mark Bethwaite, until his departure in 1998. The strategic direction after 1994 was based on several pillars: a consideration to new sources of production in mineral sands, through acquisition arrangements and exploration; a South American focus, initially upon Bolivia but extended to Peru; and a corporate restructuring exercise involving the acquisition of Pancontinental Mining and establishment of a separately listed gold company. RGC continued to face portfolio challenges with mature assets, as well as variable market conditions.

In 1994, after a loss in the previous two years, RGC recorded a barely break-even profit after tax with no dividend paid. While there was a recovery in financial performance after 1994, a market downturn became evident by 1997 that presaged a period with a need to reshape budgetary settings to attempt to achieve further cost reductions, with yet another strategic review as to the configuration of the business. Several investment decisions made by the company were contributory factors in weakening its financial position, generating initial poor returns and subsequent asset write-offs. Acquisition activity when pursued, in the case of Pancontinental Mining and Cudgen RZ and CRL, was impeded by a minority institutional shareholding that prevented RGC gaining outright ownership control. Exploration success occurred on a number of fronts, especially in mineral sands, but the period for such success to be translated into production, revenue or share market value meant that the value was not realised by RGC. Internal and external reviews of the business occurred, culminating in a Boston Consulting Group review.
Management change occurred with Bethwaite leaving the company in early 1998 and Tony Cotton assuming the joint roles of chief executive officer and chairman. In the same year, the managing director of Westralian Sands approached Hanson in London proposing a combination of the two companies. The challenges being experienced by RGC and a difficult budgetary outlook contributed to the decision by Hanson and members of the board to accept the overtures from Westralian Sands.

The largest financial investments by the company in the 1990s, and those with a poor financial outcome, were the decision to dredge mine Eneabba West, the commitment to a fourth kiln in Western Australia and the decision to invest in the Rendeep deposit at Renison. In total, the three investments entailed capital expenditure of around $300 million. Eneabba West suffered protracted commissioning issues and immense difficulties in dredging the rocky and indurated Eneabba West ore body. Mineable reserves were reduced and lower recoveries led to higher operating costs, adversely affecting the profitability of what was one of the largest investments by RGC. The decision to commit to a fourth synthetic rutile kiln, and adoption of the technology to upgrade Eneabba ilmenites to a higher titanium dioxide product, through the synthetic rutile enhanced process (SREP), resulted in lower than expected outputs and product quality issues, along with a higher than initially planned capital expenditure. The decision to develop the deep Renison ore body, Rendeep, proceeded on a basis that, as would become apparent, overestimated recoveries from the ore body. Lower recoveries and an adjustment of likely recoverable reserves meant that the $35 million investment made in 1995 failed to achieve expected outcomes.\(^1\) It was a sobering failure of planning and management and board oversight. A $30 million write-down was made three years later in the 1998 financial year, with a process put in train to sell the Renison operation.

While there was a recovery in market conditions and an improvement in the company’s financial performance, the asset base was reliant on two main businesses: mineral sands and the Porgera gold operation. Renison was earmarked for sale. Koba Tin and Narama Coal were the only other assets that made positive contributions, and these were relatively minor. Despite the major commitment to exploration and the acquisitive activities of the group, the ability to establish other, longer-term bases of production and revenue was not achieved.

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1 Renison Goldfields Consolidated Limited, ‘Minutes of Meeting of Directors’, 2 June 1994, p. 2, Renison Goldfields Consolidated Archives (RGCA), Box 14284, BRD38/08.
However, the final period of the company’s existence saw a number of initiatives seeking to establish new sources of production. The company acquired Cudgen RZ that, in turn, gave RGC control of CRL and its mineral sands operations on North Stradbroke Island in Queensland, as well as an interest in a mineral sands dredge mining operation in Sierra Leone. The progressive development of Porgera occurred, with open cut production commencing in 1993, following the depletion of the underground reserves. A major corporate restructuring led to the takeover of Pancontinental Mining and the establishment of a separately listed company, Goldfields Limited, which retained the gold assets of both RGC and Pancontinental. In turn, RGC acquired some of the Pancontinental non-gold operations and divested others, allowing debt to be reduced materially. An involvement in the privatisation of the Bolivian tin industry was evaluated, although not pursued. A major investment in a Peruvian copper and gold mine was progressed to a stage where RGC was well placed to acquire this operation. However, other events were then unfolding, while the unpreparedness of the major shareholder to commit additional capital when the mainstay of the business—mineral sands—was facing ore body maturity and weak market conditions, meant this opportunity was not pursued. In 1998, a process of evaluation and due diligence resulted in a July 1998 announcement of the intention to merge with Westralian Sands by a scheme of arrangement. By December this was completed.

A mineral sands strategic planning group was formed in 1994 to assess the options and approach for the division. The group identified that the major challenges to the business in the short term related to the successful adoption of the SREP technology, as well as the economic viability of the Eneabba West mine. Medium-term challenges related to an expected reduction in zircon production, as well as the ongoing availability of suitable ilmenite for synthetic rutile.\(^2\) The latter factor had become a more important imperative given the revised, less expansive scope of the Old Hickory project in Virginia. The RGC board approved the development of the Old Hickory deposit for $53 million in 1996. It was the company’s first mineral sands operation in six years. The deposit had been first drilled in 1988 as part of wider exploration efforts in Virginia and North Carolina, which identified two other deposits. The deposits were considered to be centrally located to customers in the United States, most notably DuPont. While undertaking initial exploration there had been ‘fierce competition

\(^2\) ibid., p. 3.
for mineral rights and the need to quickly define the resource areas’. Exploration by rival companies, including by DuPont, meant that RGC’s drilling program was accelerated and the work completed was, according to an internal report, less ‘systematic than desirable’. The level of ore body delineation had consequences in the commissioning and early stages of production at Old Hickory.

The initially planned dredge mining operation was assessed as not economic. A revised plan for a smaller-scale dry mining approach provided flexibility to access the higher-grade sections of the deposit. It had been assumed that a synthetic rutile plant would be constructed on site, as part of the company’s consideration of locating synthetic rutile capacity closer to its end markets. The initial mining and production experience at Virginia was not favourable. Mine production during 1997 was less than forecast, with poor mineral recovery. Rocks caused production interruptions, while the mining unit plant suffered a ‘catastrophic failure’. In addition, a major geological fault was discovered in a mining pit. A cost overrun of US$10.5 million was advised to the board in March 1997. While production output increased, issues with product quality persisted.

A further feasibility study led to approval for the construction of a second mine and concentrator plant at a nearby deposit to enable blending of ore.

RGC continued to pioneer technology in the development of synthetic rutile. Research initiated in 1989 was designed to develop a process to reduce the uranium and thorium levels in some of the Eneabba ilmenites, which had become an issue for the sale of synthetic rutile to pigment customers. During 1990, it was decided that total annual synthetic rutile capacity be increased to 260,000 tonnes with a $104 million upgrade project. A new plant, plant D, was designed to produce a lower uranium and thorium content synthetic rutile product, called SREP. RGC had an expectation that all of its kilns could be converted to the production of SREP, although this was not to occur. The development of SREP proved to be a protracted process with a multitude of technical challenges. Initial test work was not successful and produced material of variable titanium dioxide content. The delay in providing product to customers created a potential threat of force majeure. At the same time, a competitive threat from Rio Tinto was evident with its Canadian operation evaluating ilmenite ores from India that
were low in uranium and thorium and seen as suitable for the production of chloride slag, a competing product to synthetic rutile. Closer to home, Westralian Sands was well advanced in its own synthetic rutile production expansion plans, confident that the quality and consistency of its product would enable it to take market share from RGC.

Trial parcels of SREP were provided to chloride pigment customers for evaluation during 1995. One pigment customer, SCM, received its first shipment for its British plant and fed it into a chlorinator. The bed defluidised, or ‘froze’. SCM did not want to use SREP again. Following operational improvements and an expenditure of over $11 million in 1996, plant D was modified with commercial production commencing in 1997. The company produced a record tonnage of synthetic rutile. However, in 1997, the Narngulu synthetic rutile operations, with two kilns operating, including one devoted to SREP, generated a loss. Operational and financial issues persisted with SREP.

The development of SREP was associated with one of Australia’s longest running legal disputes. A CRA subsidiary filed a Federal Court application in 1994 seeking an injunction to prevent RGC from making SREP on the grounds of process infringement. Litigation followed with a cross-claim lodged in 1997 by RGC. A royalty was paid to Rio Tinto until the resolution of the legal dispute after RGC ceased to exist.

Marketing challenges for zircon from Eneabba emerged in the 1990s. Prior to Eneabba’s development in the 1970s, most of the global supply of zircon was sourced from Australian east-coast mineral sands producers. Supply was plentiful and it was typically of a premium quality, able to fulfil most customer requirements. Initially, on the west coast, the Capel-sourced zircon was of a lesser quality and typically classed as standard grade. In volumetric terms, zircon was also a small component of the production stream from southwest Western Australia. With the progressive development of Eneabba, zircon supply increased. This additional supply was necessary to partially offset the decline from east-coast mining activities. In the early 1980s, the focus of the sale of Eneabba zircon was in foundry applications, with technical work undertaken to persuade foundry operators of the benefits of

7  Bryan Ellis, personal communication, 15 May 2017. I am grateful to Bryan Ellis for his review of the sections related to synthetic rutile, SREP development and zircon marketing. The interpretations drawn are mine.
zircon relative to more traditional foundry sands. A boost in demand for Eneabba zircon came from the Japanese steel industry that turned to Eneabba zircon because of its coarse grain size, suited for refractory applications. At the same time, zircon usage in the Italian ceramics industry increased.

As a result of heightened demand and the reduction of supply, zircon prices increased from around $88 per tonne in 1980 to over $460 per tonne in 1990. The escalating price caused the Japanese steel mills to seek to reduce their reliance on zircon and investigate alternative products. As such, a combination of factors led to a sharp decline in zircon demand and prices in the early 1990s and a consequential serious impact on the contribution of mineral sands to RGC’s overall earnings (see Chart 9). In 1991, zircon prices declined to around $320 a tonne and dropped again to half this amount the following year. The market challenges for RGC were heightened by customer concerns with the quality of Eneabba zircon. The coarse grain size from some parts of the deposit and high iron content meant that it was not assessed as a premium product, particularly for ceramic-based applications. Ceramic customers also reduced their purchases of Eneabba zircon. A large build in zircon stocks followed. This had severe financial consequences for the mineral sands business of RGC.

A major portfolio reconfiguration took place in 1995. Pancontinental Mining had been identified as a target for acquisition. It was decided that the group’s gold exploration projects be transferred to a wholly owned subsidiary, RGC Pty Limited, with this company converted to a public company—Goldfields Limited. The objective was to consolidate the gold mining interests of RGC and Pancontinental and transfer the non-gold assets of Pancontinental to RGC. The expectation was that a gold listed company would generate a higher equity market premium, while the RGC portfolio would be further diversified by having access to a range of lead, silver and other assets from Pancontinental. Goldfields was the bidding vehicle for Pancontinental Mining, with RGC providing funding for the non-gold component of the portfolio in part through the issuance of RGC convertible notes, convertible into Goldfields shares and with funds to be repaid by the later sale of Pancontinental non-gold assets.

9 Bryan Ellis, personal communication, 29 May 2017.
10 The gold projects and exploration interests transferred to Goldfields Limited were Porgera (Papua New Guinea), Paddington (Kalgoorlie, Western Australia), Kundana (Kalgoorlie), Henty (Tasmania) and Wau exploration (Papua New Guinea). Pancontinental was the owner of the Paddington and Kundana gold projects (RGC, ‘Prospectus: Goldfields’, 7 April 1995; RGC Ltd, 1 December 1994, p. 4, RGCA, Box 2810).
11 RGC Ltd, 1 December 1994, p. 4, RGCA, Box 2810.
20. FINAL YEARS


The chart displays the Associated Minerals Consolidated contribution to Consolidated Gold Fields Australia and RGC earnings, as well as Australian dollar mineral sands prices between 1977 and 1997. After an extended period of poor returns from 1977 until 1985, returns improved from 1985 until 1991 and then declined before a partial recovery in 1996. Data for 1998 was not available. Average return on assets was 15 per cent, aided by several strong earnings years. One third of the years displayed a negative or zero return on assets, reflecting the cyclicality of the performance of the mineral sands part of the portfolio. See Appendix 4 and Appendix 5 for more information.


RGC had approached Pancontinental in 1994 with a proposal to restructure and merge RGC and Pancontinental through a scheme of arrangement. This approach was rejected. A takeover bid for Pancontinental was launched in February 1995 after RGC had acquired a 14.9 per cent interest. The share and cash bid consumed much of the year. The Pancontinental board and management offered resolute resistance. Pancontinental argued that it had sought to provide shareholders with a balanced portfolio of assets and that its shareholders were now being offered shares in a pure gold company with its predominant asset located in Papua New Guinea, yet with ‘no meaningful information about the increased risk of holding shares in such a company’. A cross-claim was

12 The Directors, Goldfields Limited, Pancontinental Mining Limited—Part A Statement, 8 March 1995, pp. 1–2, RGCA, Box 2810.
brought in the Federal Court of Australia, claiming that the Goldfields Part A statement was defective in ‘numerous critical respects’.\footnote{ibid.} It was contended that Goldfields had failed to provide earnings and cash flow forecasts, with Pancontinental having a mining engineer swear an affidavit arguing the inadequacy of financial information presented and refuting the contention that merging Pancontinental’s and Goldfields’ gold assets would ‘automatically attract the premium to which these statements refer and thereby add additional value to the company’.\footnote{Between Pancontinental Mining Limited and Goldfields Limited, Affidavit, p. 10, RGCA, Box 2810.} RGC was directed to reissue its takeover documentation to include three-year financial forecasts. Pancontinental’s defence also included an attack on RGC’s management ability and a threat to float its own gold assets.

The delay led to a revised and higher offer to Pancontinental shareholders. By June 1995, Goldfields had become entitled to 80 per cent of Pancontinental’s shares. An Australian investment management institution, QBE Insurance Group, acquired a shareholding of over 10 per cent, preventing RGC from compulsorily acquiring all of Pancontinental’s shares. Instead of outright control, RGC gained an 87.7 per cent holding. A change of board occurred, with Cotton assuming the chairmanship of Goldfields Limited and Peter Cassidy becoming the managing director and chief executive officer.\footnote{Letter from AR Cotton, Chairman Goldfields to LT MacAlister, Chairman Pancontinental Mining Limited, 16 June 1985, RGCA, Box 2810.} A complicated process followed by which Pancontinental’s non-gold assets were valued for sale or purchase by RGC. RGC acquired some and tendered unsuccessfully for a number of Pancontinental’s non-gold assets. The proceeds from the sale of assets reduced RGC’s debt, as well as contributing to RGC’s record profit after tax in 1996 of $142 million.\footnote{These included a 5.56 per cent interest in Central Queensland Coal Associates and Gregory Joint Venture (sold for $240 million in 1996). The operating assets of Pancontinental contributed $16.4 million to RGC’s pre-tax earnings in the 1996 financial year. The sale of these interests generated $81 million pre-tax and $66 million after tax and outside equity interests (\textit{RGC Annual Report 1996}, pp. 19 and 39).} Goldfields had a poor start to its corporate existence with its first full year profit of $11.1 million, compared with a prospectus forecast of $25 million to $35 million. The prime Pancontinental asset, Paddington, recorded a loss for the year.\footnote{RGC, ‘Prospectus: Goldfields’, 7 April 1995; Goldfields Limited, \textit{1996 Annual Report}. Goldfields continued to operate until 2001 when it merged with Delta Gold to form the company AurionGold. In turn Placer Dome acquired AurionGold in November 2002.}
Hard on the heels of the Pancontinental transaction, RGC acquired Cudgen RZ and through this an interest in a Queensland-based mineral sands company, CRL. Cudgen RZ Limited had been involved in sand mining in the eastern states since the 1940s. CRL was incorporated in 1963 and listed as a public company in 1965 after which it became predominantly owned by Cudgen RZ. In late 1994, RGC undertook a detailed review of CRL, based on its view that South African controlling shareholder, Gencor, might consider divesting its shareholding. Gencor had a mineral sands division in a joint venture with Rio Tinto Zinc (RTZ) at Richards Bay Minerals. Given that RTZ controlled the processing and marketing of products, Gencor’s position was seen to provide it with few synergies or market benefits related to its position in CRL. As such, Gencor was viewed as potentially willing to sell its stake in Cudgen, particularly when it announced that it was purchasing Billiton International Minerals from Shell in 1994, incurring a high level of debt.

RGC’s assessment was that CRL in 1994 was trading at a premium to its valuation and had an exposure to substantial political risk associated with its 50 per cent interest in a dredge mining operation in Sierra Leone. However, discussions with Gencor were instigated. In January 1995, mining activities at the Sierra Rutile operation ceased when rebels invaded the mine site. Consequently, CRL’s market capitalisation halved. From RGC’s perspective, it was clear there was not going to be a short-term resolution to this situation. Nonetheless, it saw a longer-term opportunity and proceeded with the acquisition of Cudgen and, in turn, acquired an interest in CRL and the Sierra Rutile operation.

During 1996, RGC acquired control of Cudgen RZ through the acquisition of Gencor’s 19.9 per cent interest followed by an on-market offer for the remainder of the shares. By August 1996, RGC owned 76.7 per cent of Cudgen, with Cudgen controlling 50.1 per cent of CRL. In December 1996, CRL announced a rights issue that RGC partially underwrote and through this acquired a further direct interest in CRL of 4.1 per cent. The Sierra Rutile deposits were ascribed no value in the transaction with the control of this deposit and its potential reactivation seen as an option with future value.

The control of CRL, as well as Sierra Rutile, was seen as useful industry consolidation that may positively influence pricing dynamics. The takeover of Cudgen strengthened RGC’s share in both the zircon and chloride titanium dioxide feedstock markets. Its share of the former increased from
30 per cent to 36 per cent and the latter from 23 per cent to 33 per cent. With the recommencement of production from Sierra Rutile, RGC’s rutile market share would double from 25 per cent to 50 per cent. As with its takeover of Pancontinental Mining, the same institutional shareholder, QBE Insurance Group, acquired a minority interest. This frustrated RGC from gaining 100 per cent control and being able to integrate CRL into its mineral sands division.

In January 1995 the Sierra Rutile operation was invaded by the Revolutionary United Front, a Liberian rebel force that had entered Sierra Leone in 1994. Most of the workforce was able to escape by vehicles and then by barge to Freetown. One employee was shot and killed and another died in a truck accident while fleeing the site. A number of employees were held hostage and not released until April 1995; one employee died in captivity. Following the attack, a private security company, Lifeguard, a subsidiary of South African Executive Outcomes, provided security for the mine site. Bethwaite visited the site and observed a ‘mine looted within an inch of its life.’ An internal RGC report indicated that a mine recommencement in early 1998 was planned. However, a violent coup d’état in 1997 forced the elected president into exile. All expatriate mining personnel at the site were withdrawn and recommencement plans suspended. Senior RGC management had to expend considerable time in engagement with international lenders, as well as planning for recommencement of mining operations. Despite plans to recommence mining operations, this did not occur during RGC’s ownership of Sierra Rutile. The operation’s assets were fully written down by the board of CRL, upon which RGC had a majority director representation.

The management of CRL’s operation on North Stradbroke Island also involved numerous challenges. CRL’s Bayside dredge and concentrator—one of two in operation—was upgraded and a move from one ore body to another was undertaken. This resulted in a six-month break in production at one of the two mines on the island. Due to these activities, production output and sales reduced in 1996 and 1997. The operation encountered numerous environmental issues, including the leakage of diesel into the groundwater. Water management issues were prevalent, with a retaining

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18 Prudential Bache Securities, RGC Limited (RGC), 14 August 1996, Brierley Collection.
20 Mark Bethwaite, personal communication, 30 March 2017.
wall failing at one deposit resulting in the inundation of a wetlands area, while a levee bank failed at another. RGC’s involvement in CRL was short-lived and unsatisfactory financially. In 1996, CRL recorded a profit of $11.7 million. The following year, abnormal items related to the write-down in the value of Sierra Rutile led to a loss of $89 million. A further $33 million in write-downs occurred in 1998, related mainly to the value of loans advanced by CRL to Sierra Rutile. A loss of $14.4 million after tax was reported.

A recovery in the mineral sands market was evident from 1996. In that year RGC recorded a net profit of $142 million, the highest since its formation, although aided by a $66 million after tax contribution from the sale of some of Pancontinental’s non-gold assets. Mineral sands constituted 40 per cent of the total assets of the company. With the reduction of direct gold-related revenues, as RGC’s interest in Porgera was now held through Goldfields, mineral sands represented the major area of growth for the group.22

Exploration remained an area of organisational commitment. One of the exploration objectives for RGC was the discovery of at least two Eneabba class discoveries.23 The focus in Australia was on the Murray Basin, encompassing large areas of Victoria and New South Wales. The plan was for an ambitious basin-scale level of geological analysis with an initial 80 kilometre traverse planned. Instead, drawing upon the expertise of Peter McGoldrick and geologist Andrew Cook, several exploration targets were identified. Drilling occurred and on the first day three discoveries were made of strand line deposits showing attractive zircon and rutile assemblages. A tenement holding of over 55,000 square kilometres was subsequently secured. A successful exploration program had delineated a major new mineral sands province in Australia. In 1997 a pre-feasibility

22 RGC acquired an 87.7 per cent beneficial interest in the Thalanga base metals mine through the Goldfields bid for Pancontinental and after the takeover RGC tendered for and acquired a 100 per cent ownership of Thalanga. RGC acquired a 66 per cent interest in the Mount Windsor Joint Venture, located 50 kilometres east of Thalanga, consisting of the Highway and Reward copper deposits. The development of the Highway project was approved in 1998 for an expenditure of $37.6 million. The gold interests, apart from Porgera, for which RGC had a beneficial interest through its shareholding in Goldfields, included Kundana and Paddington. RGC’s Henty gold mine commenced production in June 1996 after board capital expenditure approval of $53 million in July 1992, and subsequent arrangements to acquire the interest held by Little River Goldfields.

23 The overall exploration program (1994–1998) had the following main targets: 5 million ounces of gold; 20 million tonnes of copper, zinc, lead, gold, silver (Rosebery type); 10 million tonnes of zinc, lead, gold (Century type); and 100 million tonnes of porphyry or Proterozoic copper/gold (Colin Cannard, personal communication, 25 September 2018).
study was commenced for the development of one set of deposits, near the Victorian township of Ouyen. Exploration permits were also issued and evaluated in Tamil Nadu, India, while negotiations in relation to the potential development of the Kerala mineral sands project were protracted. Failure to advance suitable arrangements led to RGC walking away. In Sri Lanka, mineralisation was identified leading to RGC undertaking drilling activities. In the United States, exploration resulted in the discovery of mineral sands mineralisation in Georgia, Camden, Tennessee South, North Carolina and Virginia.

Koba Tin in Indonesia expanded through the addition of a dredge at the Bemban deposit, while a smelter was constructed and commissioned in December 1995 to enable direct metal production from the increased output and benefit from lower treatment charges.

In October 1993, the RGC board considered the feasibility study for the development of the Rendeep deposit, with a proposal made for further drilling, although not the approval of the project due to the low tin price. Expectations conveyed to the board were that Rendeep had the potential to extend mining operations by 10 to 20 years, although on the basis of prevailing tin prices in 1993 much of this additional resource potential was deemed uneconomic. By June 1994, the board resolved to commit $34 million for the Renison shaft project to access the higher grades in Rendeep and contribute to expected higher profitability and a longer mine life.24

According to the RGC 1994 annual report, drilling of Rendeep delineated a probable reserve of 3.3 million tonnes with a tin grade of 1.96 per cent. This probable reserve estimate represented a more than 100 per cent increase, as well as a material increase in the existing grade of recoverable tin of 1.5 per cent. The experience of producing from Rendeep would be markedly different. Mining from the Rendeep ore body began in 1996. Milling recoveries of tin from ore were expected to be as high as 84 per cent, the level being reported from the existing Renison mining operations. By August 1996, Renison tin recoveries were at the mid-70 per cent level. By November, low tin recovery was better understood in terms of the variability in ore types being processed.

24 Renison Goldfields Consolidated Limited, ‘Minutes of Meeting of Directors’, 23 October 1993, RGCA, Box 1130, BRD38/05; Renison Goldfields Consolidated Limited, ‘Minutes of Meeting of Directors’, 2 June 1994, RGCA, Box 14284, BRD38/08.
However, this led to some mineralisation, previously categorised as ore, being taken out of the mine plan. As such, the expected uplift in reserves and recovery of higher-grade ore did not occur; within a year of the commencement of Rendeep, the estimated mine life had been reduced from 13 years to nine years. Relative to the position in 1994, probable ore reserves were reduced by 70 per cent by 1997, while proved and probable reserves in total decreased by 46 per cent. Despite a higher tin grade, recoverable tin was lower.

By March 1997, the operation was continuing to suffer recoveries below expectations, which was ‘severely impacting on profitability’. Tin prices had declined and the value of the Australian dollar had appreciated. Renison’s contribution to group profit declined from $1.9 million in 1993, representing a 7 per cent return on assets, to four years of subsequent losses (see Chart 10). These factors were the forerunners to a write-down in the carrying value of Rendeep of a similar magnitude as the original investment. The decline in the contribution of what was once the ‘jewel in the crown’ was absolute. This led to a review of the operating strategy for the mine, with further reductions in the workforce and the decision to sell the operation while some value was still capable of being obtained.

In the preparation of the recommendation for the sale, an internal RGC report outlined the financial history of Renison. During the second half of the 1960s and first half of the 1970s, Renison generated satisfactory returns, while the second half of the 1970s and first half of the 1980s was the mine’s ‘halcyon’ period. The third decade, from the mid-1980s to the 1990s, was associated with structural changes in the tin industry. By 1998, Renison had become only one of two underground mining operations in an industry dominated by lower-cost soft rock and alluvial production sources. The conclusion of the review was that Renison—at one time the principal asset of the group—had provided acceptable returns for only a third of its operating life. The operation was sold in 1998.

26 RGC Limited Board Papers, Sale of Renison Tin Mine Assets, August 1998, RGCA, Box 11348.

Renison’s contribution to group earnings was strongest in the 1970s and early 1980s, before a decline in the mid-1980s, in part related to higher operating costs and reduced ore grade. In 1985, the collapse of the International Tin Council Buffer Stock Manager system resulted in historically low tin prices and a period of low to negative earnings. During the period shown in the chart, Renison’s average annual return on assets was 20 per cent with the period 1977 to 1985 displaying a strong contribution with an average return on assets of 60 per cent. From 1986 the average annual return on assets fell to –3.7 per cent. See Appendix 4 and Appendix 6 for more information.


Despite the numerous portfolio challenges and the impediments that had been placed on the group’s two main acquisitions, RGC remained expansive in its strategic thinking. The company investigated potential involvement in a recapitalisation process for the Bolivian tin industry.27 Bolivia was viewed as attractive in terms of mineral prospectivity, including tin, and that in combination with RGC’s involvement in Renison and Koba, there was an opportunity to increase the company’s share of global tin production. Part of the Bolivian Government’s program of privatisation involved the introduction of investors to provide capital

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27 RGC, EM Vinto Capitalisation Bolivia, Vinto Corporation, March 1997, RGCA, 408-01, Box 4049.
for the development of two tin mines and the EM Vinto tin smelter. RGC considered bidding to acquire a half interest in Vinto Corporation. However, the assessed returns were viewed as low while managing the transition of the mines to developed country standards was expected to involve a range of social issues. The risks of operating in the country also became evident when, on two separate occasions, sticks of dynamite were thrown at RGC personnel. The bid did not proceed.

The company also evaluated a silver, lead and zinc investment at the San Cristobal mine in southern Bolivia. In Turkey, the Cerattepe gold and base metals project was progressed through a non-binding offer, while in Peru the company investigated the Cerro Corona copper and gold project. In May 1997, negotiations for Cerro Corona were concluded and by June the offer had been accepted subject to determination of payment terms.28 In December 1997 the RGC board resolved not to exercise an option to proceed with the acquisition of Cerro Corona, although management was provided with the opportunity to evaluate the acquisition further.

RGC’s 1997 financial year results included abnormal items totalling $142 million, associated with write-downs in the carrying value of Renison, Capel, a number of the Pancontinental assets and Sierra Rutile.29 The company recorded a loss after abnormal items. Planning for the 1998 financial year assessed that cash flow generation and the balance sheet situation were satisfactory, although profitability was not. Operational problems at Renison, which was expected to be loss-making; lower production from the Thalanga base metal operation, acquired from Pancontinental; and a poor market for mineral sands pointed to a weak business outlook. Internal reports indicated that, for a number of operations, including Thalanga, Renison, Capel and Florida, ‘the operating strategy is “survival”’.30 For the Capel mineral sands operation, the decline in demand for sulphate ilmenite and lower ore grades meant that high levels of capital would be required to extend the life of this operation beyond two years. For an asset that had operated for over 40 years, the decline of the market for Capel ilmenite, and a requirement for major additional capital to sustain production, placed ‘a question over Capel’s

29 The main items on a before-tax basis were Renison $30 million, Thalanga Base Metals $50.1 million, Paddington Gold $26.4 million, Sierra Rutile $25.3 million and Capel $15.0 million (RGC Annual Report 1997, p. 38).
long term mine plan’.31 The Sierra Rutile operation had been expected to recommence in early 1998. The political situation within the country meant this likelihood was delayed a further 18 months and, in fact, Sierra Rutile did not produce under RGC ownership.

These factors necessitated a further restructuring in mineral sands, with increased provisions for closure and environmental legacy issues, as well as redundancy planning associated with short mine lives, particularly at Capel. The outlook for the Florida dredge operation was ‘bleak’ without dry or satellite mining, although the company’s United States’ activities provided some encouragement due to success in regional exploration and the potential to acquire other mineral sands deposits.32 Nonetheless, even with the inclusion of CRL and Old Hickory in mine plans—the latter about two-thirds complete—these factors were not considered sufficient to offset the deterioration in the ore bodies at Eneabba and Capel.

In fact, Eneabba, described as the division’s ‘powerhouse, with zircon as a main contributor to the cycle peaks’, was viewed as determining the future of the division.33 ‘The budgetary outlook for Eneabba reflected ‘the harsh reality of the orebody deterioration expected in the coming years’, with key challenges related to ‘zircon grade and recoverability’.34 Further, the capital expenditure requirements for the mineral sands division were substantial: an estimated $470 million over three years. Detailed proposals for rationalising the Eneabba and Narngulu operations were prepared, and implemented in the latter part of 1998. Eighty people were made redundant, synthetic rutile output was reduced and the Eneabba mineral processing plant was closed.

As such, in 1997 and 1998 RGC was facing challenges on a number of fronts. Apart from the failure of Renison to perform as expected, zircon prices had weakened, with stocks building, presaging another period of poor market conditions. The company was involved in ongoing litigation associated with SREP and major customers were refusing to accept the product. In mid-1997 another legal issue arose when the main customer of Narama coal refused to pay for shipments delivered in June and August of that year, leading to preparations for legal proceedings.

32 ibid., p. 4.
34 ibid.
Goldfields was struggling with some of its assets: a write-down occurred, with the longevity of the Paddington gold mine in Western Australia reduced when a feasibility study did not support the reserve estimate and its closure was brought forward. Operationally, Porgera was affected by drought and production ceased for a period.

Peter Housden, the finance director, commissioned the Boston Consulting Group to undertake a report on the financial parameters of the company. An informal meeting of board members and the executive committee occurred on 8 November 1997 following receipt of the Boston Consulting Group report. It was apparent that the board, and particularly the Hanson directors, were seeking a broader-ranging strategic review. This was undertaken, although the review was not welcomed by all members of the executive group. Pressure on management was intense and internal dissension at the senior ranks of the company—some long held and some generated under the pressure of widespread portfolio challenges—became evident to directors. Approaches by two members of the executive group to directors over drinks at a Christmas function at the home of Tony Cotton alerted the board to tensions within the Sydney management of the company.

While opportunities in Bolivia, Turkey and Peru were being progressed, the Boston Consulting Group came to the conclusion that mineral sands should be the core focus of the company. In the context of challenges on a number of fronts—financial, technical and operational—and with an increasingly restive major shareholder, Grahame Campbell, a recently appointed director, recalled that the ‘major shareholder was applying pressure and it was clear … that a major shakeup was on the cards’. At a board meeting on 6 January 1998, directors were advised that Bethwaite had tendered his resignation. Cotton assumed the role of interim chief executive officer. Campbell recalled that the position of the directors in searching for a new chief executive officer was ‘difficult for the board … by Hanson announcing that it wanted to sell its holding’. He also recalled that Vince Gauci, the former chief executive officer of Pancontinental Mining, was identified as a suitable candidate for the role of RGC chief executive officer. However, he had to be advised that his job may

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35 Campbell, Clarinets, Pipelines and Unforeseen Places, p. 493. Peter Mason was a fellow director appointed at the same time as Campbell.
be short-lived as the company might be sold. According to Campbell: ‘Vince accepted our advice and went on to lead MIM [Mount Isa Mines] successfully’. 36

On 26 February 1998, Cotton, as executive chairman, announced that the company was undertaking a comprehensive review of its business, associated with the reduction in profitability ascribed in part to the decline of the profitability of Eneabba, as well as high costs associated with production of the SREP product. A decision was made to close the Capel mine in June 2000. While not mentioned in the public release, funding issues had arisen for CRL, with the company evaluating short-term facilities to cover its working capital requirements. There was also a subordinated debt issue in providing the necessary funds for the move of a dredge to a new ore body. Without this mine move, according to an internal report, ‘the value of CRL would be significantly reduced’. 37

The Boston Consulting Group review led to a ‘new RGC business plan’, which confirmed mineral sands as the company’s core business and with plans to concentrate management, financial and technical resources on the assets within this division. 38

From early 1998, RGC management was also involved in a new activity: the planning for a merger with Westralian Sands. A public announcement was made in July 1998 of an agreed merger by scheme of arrangement between Westralian Sands and RGC. The following months saw this arrangement progressed, finalised and approved by shareholders of RGC before the end of the year.

36 ibid., p. 494. Gauci had been offered a senior executive role within RGC or Goldfields at the time of the Goldfields takeover of Pancontinental but did not avail himself of either of these opportunities.