82- SUBMISSIONS FACING SHEET

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REGISTRANT'S NAME Xstrata plc

*CURRENT ADDRESS Bahnhofstrasse 2
6301 Zug, Switzerland

**FORMER NAME

**NEW ADDRESS

PROCESSED
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P THOMSON FINANCIAL

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* Complete for initial submissions only ** Please note name and address changes

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Xstrata

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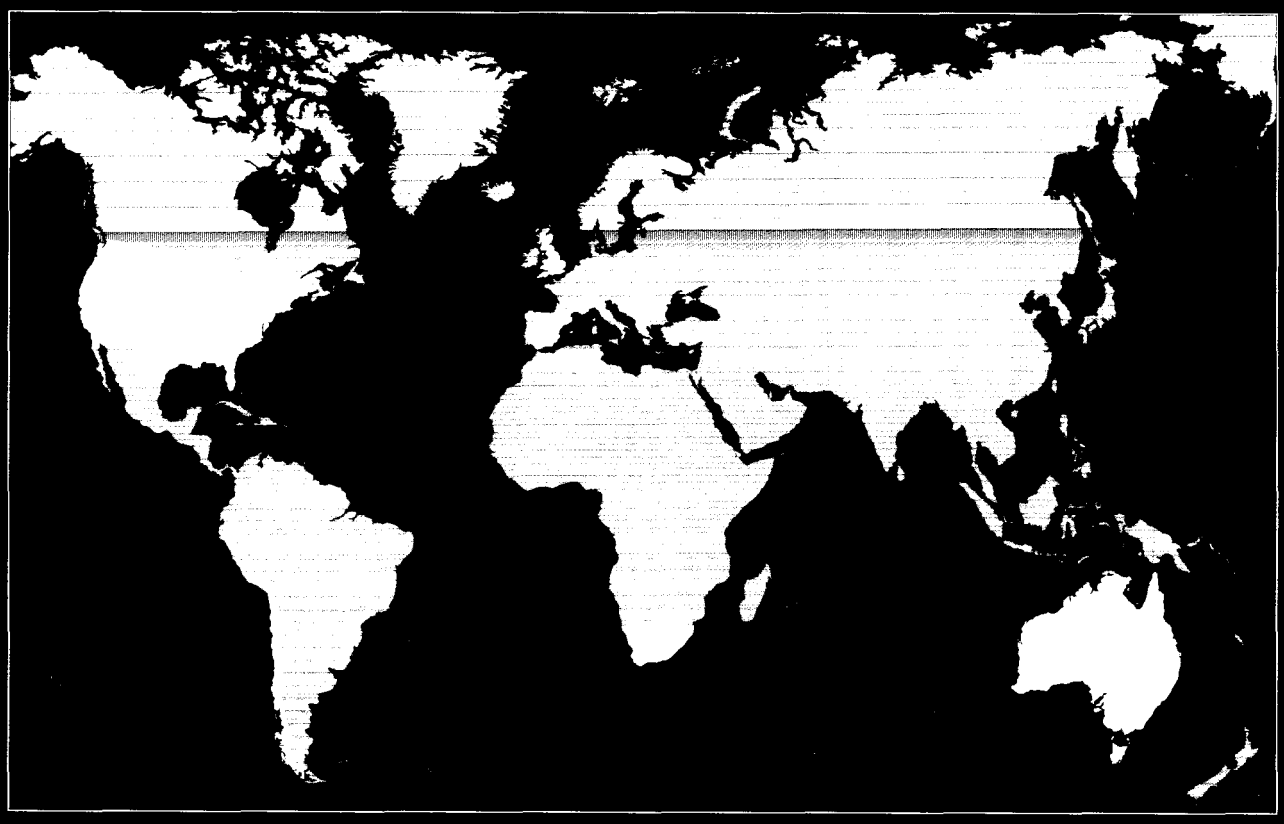
Xstrata plc Listing Particulars
Sponsored by J.P. Morgan plc
March 2002

Xstrata is an international natural resources group based in Switzerland. It comprises three major businesses: the Coal Business, which has interests in a number of operating coalmines located in Australia and South Africa; the Zinc Business, which has a zinc mining and smelting operation in Spain; and the Ferroalloys Business which has integrated ferrochrome and vanadium production facilities in South Africa and Australia. In addition, Xstrata has a magnesium re-cycling facility in North America and a forestry plantation in Chile.



Australia
Chile
South Africa
Spain
Switzerland
United Kingdom
United States

delivered for registration to the Registrar of Companies in England and Wales in accordance with section 83 of that Act.

Application has been made to the UK Listing Authority and to London Stock Exchange plc (the "London Stock Exchange") for the Ordinary Shares of Xstrata, issued and to be issued in connection with the Acquisitions, the Merger and the Global Offer, to be admitted to the Official List of the UK Listing Authority and for such Ordinary Shares to be admitted to trading on the London Stock Exchange's market for listed securities. Admission to the Official List together with admission to trading on the London Stock Exchange's market for listed securities ("Admission") will constitute admission to official listing on a stock exchange. Conditional dealings in the Ordinary Shares are expected to commence on the London Stock Exchange on 20 March 2002. It is expected that Admission will become effective and that unconditional dealings will commence in the Ordinary Shares at 8.00 a.m. (London time) on 25 March 2002. All dealings before the commencement of unconditional dealings will be of no effect if Admission does not take place and such dealings will be at the sole risk of the parties concerned. Application has also been made to the Admissions Board of SWX Swiss Exchange ("SWX") for the Ordinary Shares of Xstrata, issued and to be issued in connection with the Acquisitions, the Merger and the Global Offer, to be admitted to listing on SWX ("Swiss Admission"). It is expected that Swiss Admission will become effective and that dealings will commence in the Ordinary Shares on SWX at 9.00 a.m. (Central European time) on 25 March 2002.

The Directors of Xstrata, whose names appear on page 11 of this document, accept responsibility for the information contained in this document. To the best of the knowledge and belief of the Directors (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and does not omit anything likely to affect the import of such information.

For a discussion of certain risks and other factors that should be considered in connection with an investment in the Ordinary Shares, see "Investment considerations" set out in Part IV.

Xstrata plc

(Incorporated under the Companies Act 1985 and registered in England and Wales with registered no. 4345939)

Global Offer of 100,000,000 Ordinary Shares of US$0.50 each
at a price of 870p per Ordinary Share
and admission to the Official List of the UK Listing Authority and
admission to trading on the London Stock Exchange

Sponsored by J.P. Morgan plc

Expected ordinary share capital immediately following the Global Offer (assuming no exercise of the Manager's Option)

Authorised			*Issued*	
Number	*Amount*	*Ordinary Shares of US$0.50 each*	*Number*	*Amount*
350,000,000	US$175,000,000		227,601,000	US$113,800,500

In connection with the Global Offer, J.P. Morgan Securities Ltd., as stabilising manager, in consultation with the other Joint Bookrunners, may over-allot or effect other transactions with a view to supporting the market price of the Ordinary Shares at a level higher than that which might otherwise prevail for a limited period after the Offer Price is announced. However, there is no obligation on J.P. Morgan Securities Ltd. to do this. Such transactions may be effected on the London Stock Exchange, SWX, the over-the-counter market or otherwise. Such stabilising, if commenced, may be discontinued at any time and must be brought to an end after a limited period.

In connection with the Global Offer, the Company has granted J.P. Morgan Securities Ltd., on behalf of the Underwriters, an option (the "Manager's Option") which is exercisable in whole or in part, upon notice by J.P. Morgan Securities Ltd., for the period commencing with the date of this document and ending 30 days after Admission. Pursuant to the Manager's Option, J.P. Morgan Securities Ltd., in consultation with the other Joint Bookrunners, may require the Company to issue up to 15,000,000 additional new Ordinary Shares at the Offer Price, inter alia, to cover over-allotments or further allotments, if any, in connection with the Global Offer and to cover short positions resulting from stabilisation transactions. Any Ordinary Shares issued by the Company following the exercise of the Manager's Option will be issued on the same terms and conditions as the Ordinary Shares being issued in the Global Offer.

J.P. Morgan plc and J.P. Morgan Securities Ltd. are advising Xstrata and Xstrata AG and no one else in connection with the Global Offer, the Acquisitions and the Merger and will not be responsible to anyone other than Xstrata and Xstrata AG for providing the protections afforded to their clients or for providing any advice in relation to the Global Offer, the Acquisitions or the Merger.

Dated 20 March 2002

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Sponsor and Financial Adviser

J.P. Morgan plc

Global Co-ordinator

J.P. Morgan Securities Ltd.

Joint Bookrunners

J.P. Morgan Securities Ltd.

Cazenove & Co. Ltd

Deutsche Bank AG London

Co-lead Managers

BNP PARIBAS

HSBC Investment Bank plc

Co-manager

NZB Neue Zürcher Bank

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references to the "Group" are to Xstrata and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings as constituted immediately following the completion of the Acquisitions and the Merger and includes the Enex Group and the Duiker Group. References to the "Xstrata AG Group" are to Xstrata AG and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings as constituted immediately prior to the completion of the Acquisitions and the Merger and excludes the Enex Group and the Duiker Group. Details of the Acquisitions and the Merger are set out in Part I.

The Ordinary Shares have not been, nor will they be, registered under the Securities Act or with any securities regulatory authority of any state or jurisdiction of the United States or under the applicable securities laws of Australia, Japan or South Africa. Subject to certain exceptions, the Ordinary Shares may not be offered in the United States, Australia, Japan or South Africa or to or for the account or benefit of any US person (as that term is defined in Regulation S) or any national, resident or citizen of Australia, Japan or South Africa. The Underwriters may arrange for the offer and sale of Ordinary Shares in the United States only to persons reasonably believed to be Qualified Institutional Buyers (as defined in Rule 144A under the Securities Act) in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A, or another exemption from, or transaction not subject to, the registration requirements of the Securities Act. Prospective purchasers are hereby notified that the sellers of the Ordinary Shares may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A, or another exemption from the registration requirements of the Securities Act. Ordinary Shares are also being offered and sold outside the United States in accordance with Regulation S under the Securities Act.

This document does not constitute an offer of, or the solicitation of an offer to subscribe for or buy, any Ordinary Shares to any person in any jurisdiction to whom or in which such offer or solicitation is unlawful and, in particular, is not for distribution in Australia, Japan or South Africa.

The distribution of this document in certain jurisdictions may be restricted by law and therefore persons into whose possession this document comes should inform themselves about and observe any such restriction. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction. The offer and sale of Ordinary Shares and the distribution of this document are subject to the restrictions set out under "Additional information – Securities laws" in paragraph 11 of Part VIII.

No person has been authorised to give any information or make any representations other than those contained in this document and, if given or made, such information or representations must not be relied upon as having been so authorised. Neither the delivery of this document nor any subscription or sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Group, the Xstrata AG Group, the Enex Group or the Duiker Group since the date hereof or that the information in this document is correct as of any time subsequent to the date of this document.

The content of this document is not to be construed as legal, business or tax advice. Each prospective investor should consult his, her or its own solicitor, independent financial adviser or tax adviser for legal, financial or tax advice.

None of the US Securities and Exchange Commission, any other US federal or state securities commission or any non-US securities commission or any regulatory authority has approved or disapproved of the Ordinary Shares nor have such authorities *reviewed or passed upon the accuracy or adequacy of these Listing Particulars. Any representation to the contrary is a criminal* offence.

NOTICE TO CANADIAN INVESTORS

None of the Ordinary Shares have been or will be qualified by a prospectus for sale to the public in Canada under applicable Canadian securities laws and, accordingly, any offer or sale of the Ordinary Shares in Canada will be made pursuant to an exemption from the applicable prospectus filing requirements, and otherwise in compliance with applicable Canadian laws. Investors in Canada should refer to "Additional information – Securities laws – Canada" in paragraph 11.7 of Part VIII and Ontario purchasers in particular should refer to "Additional information – Securities laws – Canada – Statutory rights of action (Ontario Purchasers)" in paragraph 11.7 of Part VIII.

NOTICE TO NEW HAMPSHIRE RESIDENTS ONLY

NEITHER THE FACT THAT A REGISTRATION STATEMENT OR AN APPLICATION FOR A LICENCE HAS BEEN FILED UNDER CHAPTER 421-B OF THE NEW HAMPSHIRE REVISED STATUTES ("RSA 421-B") WITH THE STATE OF NEW HAMPSHIRE NOR THE FACT THAT A SECURITY IS EFFECTIVELY REGISTERED OR A PERSON IS LICENSED IN THE STATE OF NEW HAMPSHIRE CONSTITUTES A FINDING BY THE SECRETARY OF STATE OF THE STATE OF NEW HAMPSHIRE THAT ANY DOCUMENT FILED UNDER RSA 421-B IS TRUE, COMPLETE AND NOT MISLEADING. NEITHER ANY SUCH FACT NOR THE FACT THAT AN EXEMPTION OR EXCEPTION IS AVAILABLE FOR A SECURITY OR A TRANSACTION MEANS THAT THE SECRETARY OF STATE OF THE STATE OF NEW HAMPSHIRE HAS PASSED IN ANY WAY UPON THE MERITS OR QUALIFICATIONS OF, OR RECOMMENDED OR GIVEN APPROVAL TO, ANY PERSON, SECURITY OR TRANSACTION. IT IS UNLAWFUL TO MAKE OR CAUSE TO BE MADE, TO ANY PROSPECTIVE PURCHASER, CUSTOMER OR CLIENT ANY REPRESENTATION INCONSISTENT WITH THE PROVISIONS OF THIS PARAGRAPH.

limited company incorporated under the laws of England and Wales. Furthermore, a substantial portion of the Directors' assets and the assets of the Group are located outside the United States. As a result, it may not be possible for investors in the United States to:

- effect service of process within the United States upon a majority of the Directors and executive officers of the Group or on Xstrata; or
- enforce in the US courts or outside the United States judgments obtained against a majority of the Directors and executive officers of the Group or Xstrata in the US courts in any action, including actions under the civil liability provisions of US securities laws; or
- enforce in the US courts judgments obtained against a majority of Directors and executive officers of the Group or Xstrata in courts in jurisdictions outside the United States in any action, including actions under the civil liability provisions of US securities laws.

Investors may also have difficulties enforcing, in original actions brought in courts in jurisdictions outside the United States, liabilities under the US securities laws.

The Directors have been advised by Freshfields Bruckhaus Deringer, the Company's legal advisers as to English law, that there is doubt as to the enforceability of liabilities against these persons in the United Kingdom in original actions or in actions for the enforcement of judgments of US courts predicated upon the federal securities laws of the United States.

AVAILABLE INFORMATION

For so long as any of the Ordinary Shares remain outstanding and are "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, Xstrata will, during any period in which it is not subject to Section 13 or 15(d) under the US Securities Exchange Act of 1934 (the "Exchange Act"), nor exempt from reporting under the Exchange Act pursuant to Rule 12g3-2(b) thereunder, make available to any holder or beneficial owner of such restricted securities, or to any prospective purchaser of such restricted securities designated by such holder or beneficial owner, the information specified in, and meeting the requirements of, Rule 144A(d)(4) under the Securities Act upon the request of such holder, beneficial holder or prospective purchaser.

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Announcement of the Offer Price	20 March 2002
Conditional dealings in Ordinary Shares expected to commence on the London Stock Exchange	20 March 2002
Last day of dealings in Xstrata AG Shares	22 March 2002
Admission and expected commencement of unconditional dealings in Ordinary Shares on the London Stock Exchange	8.00 a.m. on 25 March 2002
Admission and expected commencement of dealings in Ordinary Shares on SWX	9.00 a.m. (Central European time) on 25 March 2002
Crediting of Ordinary Shares to CREST accounts	25 March 2002
Crediting of Ordinary Shares to SIS accounts (where applicable)	25 March 2002
Despatch of definitive share certificates (where applicable)	1 April 2002

Each of the times and dates in the above timetable is subject to change.

Other than as indicated, all times are London times.

Global Offer statistics

Offer Price	870p
Number of Ordinary Shares being offered in the Global Offer[1]	100,000,000
Number of Ordinary Shares subject to the Manager's Option[2]	15,000,000
Number of Ordinary Shares in issue immediately following the Global Offer[3]	227,601,000
Market capitalisation of the Company at the Offer Price[4]	£1,980 million
Estimated net proceeds of the Global Offer receivable by the Company[5]	£829 million

(1) Assuming the Manager's Option is not exercised.

(2) The number of Ordinary Shares the subject of the Manager's Option is equivalent to 15% of the aggregate number of Ordinary Shares comprised in the Global Offer. If the Manager's Option is exercised, Glencore International is obliged to subscribe, at the Offer Price, for such number of Ordinary Shares as is necessary to maintain its shareholding in the Company at 40%.

(3) Assuming the Manager's Option is not exercised. If the Manager's Option is exercised in full, an aggregate of 252,601,000 Ordinary Shares will be in issue immediately following the Global Offer.

(4) Assuming the Manager's Option is not exercised. If the Manager's Option is exercised in full, the market capitalisation of the Company will be approximately £2,198 million at the Offer Price.

(5) The estimated net proceeds of the Global Offer receivable by the Company are stated after deduction of underwriting commissions and other fees and expenses of the Global Offer payable by the Company which are estimated to be approximately £41 million assuming the Manager's Option is not exercised. If the Manager's Option is exercised in full, the estimated net proceeds of the Global Offer receivable by the Company will be approximately £955 million after deduction of underwriting commissions and other fees and expenses of the Global Offer payable by the Company which are estimated to be approximately £46 million.

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Directors	Willy Strothotte	Chairman
	Michael Davis	Chief Executive
	Trevor Reid	Finance Director
	Santiago Zaldumbide	Executive Director
	David Rough	Deputy Chairman*
	Dr. Reto Domeniconi	Non-executive Director
	Ivan Glasenberg	Non-executive Director
	Paul Hazen	Non-executive Director
	David Issroff	Non-executive Director
	Robert MacDonnell	Non-executive Director
	Sir Steve Robson	Non-executive Director
	Dr. Frederik Roux	Non-executive Director
Head office and business address of the Directors	Bahnhofstrasse 2 6301 Zug Switzerland	
Company secretary	Chalfen Secretaries Limited 3rd Floor, 19 Phipp Street London EC2A 4NZ	
Registered office	Becket House 1 Lambeth Palace Road London SE1 7EU	

*David Rough has agreed to become a Non-executive Director and Deputy Chairman of the Company with effect from 1 April 2002.

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Sponsor and Financial Adviser	J.P. Morgan plc 125 London Wall London EC2Y 5AJ
Global Co-ordinator	J.P. Morgan Securities Ltd. 60 Victoria Embankment London EC4Y 0JP
Joint Bookrunners	J.P. Morgan Securities Ltd. 60 Victoria Embankment London EC4Y 0JP
	Cazenove & Co. Ltd 12 Tokenhouse Yard London EC2R 7AN
	Deutsche Bank AG London Winchester House 1 Great Winchester Street London EC2N 2DB
Legal advisers to the Company as to English and US law	Freshfields Bruckhaus Deringer 65 Fleet Street London EC4Y 1HS
Legal advisers to the Company as to Swiss law	Bär & Karrer Seefeldstrasse 19 8024 Zurich Switzerland
Legal advisers to the Sponsor, Global Co-ordinator and Joint Bookrunners as to English and US law	Linklaters One Silk Street London EC2Y 8HQ
Auditors to the Company and reporting accountants	Ernst & Young LLP Becket House 1 Lambeth Palace Road London SE1 7EU
Registrar	Computershare Investor Services PLC P.O. Box 82 The Pavilions Bridgwater Road Bristol BS99 7NH
Paying Agent (in Switzerland)	Credit Suisse First Boston Uetlibergstrasse 231 P.O. Box 100 8070 Zurich (and all branches of Credit Suisse within Switzerland)
Clearing Agent (in Switzerland)	SIS SegaInterSettle AG Abteilung Corporate Action UK Thurgauerstrasse 54 8050 Zurich

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Presentation of business information

On 21 February 2002, Xstrata and certain members of the Xstrata AG Group agreed to acquire the Enex Group and the Duiker Group. See "Information on the Group – The acquisition of the Coal Assets and the Merger – The acquisition of the Coal Assets" in Part I. In addition, pursuant to the proposed Merger, all of the assets of Xstrata AG will be transferred to Xstrata and Xstrata will become the ultimate holding company of the Group. In addition, Xstrata will assume all of Xstrata AG's liabilities. See "Information on the Group – The acquisition of the Coal Assets and the Merger – The Merger" in Part I. Completion of the Acquisitions and the Merger is conditional upon Admission occurring not later than 25 March 2002 or such later date as may be agreed between the parties.

Unless the context otherwise requires, this document assumes that the Acquisitions and the Merger have become effective and the transactions relating to the Acquisitions and the Merger have been completed. In this document, unless otherwise provided, references to the "Group" are to Xstrata and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings as constituted immediately following the completion of the Acquisitions and the Merger and includes the Enex Group and the Duiker Group. References to the "Xstrata AG Group" are to Xstrata AG and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings as constituted immediately prior to the completion of the Acquisitions and the Merger and excludes the Enex Group and the Duiker Group. The Company expects to complete the Acquisitions and the Merger simultaneously with Admission.

Presentation of financial information

This document includes financial information for each of Xstrata, the Xstrata AG Group, the Enex Group and the Duiker Group. Because the Acquisitions have not yet completed, there is no historical consolidated audited financial information relating to the Group. As a result, Part VI contains separate Accountants' Reports for each of the Xstrata AG Group, the Enex Group and the Duiker Group for the three accounting periods ended 31 December 2001 and for Xstrata as at 31 December 2001 (its date of incorporation).

Unless otherwise indicated, financial information in this document has been prepared in accordance with UK GAAP and in US dollars. UK GAAP differs in certain significant respects from US GAAP and IAS. For a discussion of the most significant differences between UK GAAP and US GAAP and between UK GAAP and IAS as they relate to Xstrata, the Xstrata AG Group, the Enex Group and the Duiker Group, see "Additional information – Summary of differences between GAAP" in paragraph 12 of Part VIII.

The Accountants' Reports included in Part VI for Xstrata, the Xstrata AG Group, the Enex Group and the Duiker Group have been prepared in accordance with the Statements of Investment Circular Reporting Standards issued by the Auditing Practices Board in the United Kingdom.

EBITDA represents earnings before interest, taxation, depreciation and amortisation. EBIT represents earnings before interest and taxation. Although UK GAAP does not define the measures EBITDA and EBIT, they are measures which are widely used in the natural resources sector to evaluate a company's operating performance. Nevertheless, EBITDA and EBIT should not be considered in isolation or as a substitute for operating profit, cash flows from operating activities or any other measure for determining Xstrata's or the Group's operating performance or liquidity that is calculated in accordance with UK GAAP. As EBITDA and EBIT are not measures of performance calculated in accordance with UK GAAP, these measures may not be comparable to similarly titled measures employed by other companies.

Pro forma financial information

In this document, references to "pro forma" financial information are to information which has been extracted from the unaudited pro forma combined financial information contained in Part VII. Potential investors should read the whole document and not just rely on the information contained in Part VII. The unaudited pro forma combined financial information contained in Part VII is based on, and is derived from, as appropriate, the audited financial statements or Accountants' Reports on the Xstrata AG Group, the Enex Group and the Duiker Group for the year ended 31 December 2001 and on Xstrata as at 31 December 2001 (its date of incorporation). The unaudited pro forma combined financial information is compiled having made adjustments that result from aggregating amounts relating to the companies which are the subject of the Acquisitions which the Group did not own during the year ended 31 December 2001 and making certain estimates and assumptions in respect of such period. The Company believes that these adjustments, assumptions and estimates are appropriate and reasonable. However, the unaudited pro forma combined financial information is not necessarily indicative of the operating results or financial position that the Group would have achieved had the Acquisitions and the Merger occurred at 1 January 2001 or of what the Group's results of operations may be for any future period. In the compilation of such unaudited pro forma combined financial information, profit and loss account information has been translated using an average exchange rate for the relevant period or average monthly rates as appropriate and balance sheets have been translated using the exchange rate at the period end. The unaudited pro forma combined financial information is for illustrative purposes only and is not intended to give a true picture of the financial position or results of the Group.

Pro forma unaudited combined constructed illustrative financial information

This document includes pro forma unaudited combined constructed illustrative financial information in relation to the Group for the year ended 31 December 2001. This information has been prepared as if the Acquisitions together with the acquisitions of Asturiana (by the Xstrata AG Group) and Oakbridge (by the Enex Group) had occurred on 1 January 2001 and includes the results of these companies and businesses acquired by the Xstrata AG Group and the Enex Group during 2001 prior to the date of their respective acquisition. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set

out in Part VI including information relating to the results of the companies acquired by the Xstrata AG Group and the Enex Group during the period since 1 January 2001 to the date of their respective acquisition. This information has been adjusted to reflect the amortisation of goodwill on the acquisition of Asturiana and incremental interest charges on borrowings utilised to finance the acquisitions of Asturiana and Oakbridge. The Company believes that these adjustments are appropriate and reasonable, however, the pro forma unaudited combined constructed illustrative financial information is not necessarily indicative of the operating results or financial position that the Group would have achieved had the Acquisitions and the other acquisitions referred to above occurred at 1 January 2001 or of what the Group's results of operations may be for any future period. The pro forma unaudited combined constructed illustrative financial information is for illustrative purposes only and is not intended to give a true picture of the financial position or results of the Group.

Currencies

In this document, references to "Australian dollars" or "A$" are to the lawful currency of Australia, references to "Euro" or "€" are to the currency introduced at the start of the third stage of European economic and monetary union pursuant to the Treaty establishing the European Community, as amended, references to "pounds sterling", "£", "pence" or "p" are to the lawful currency of the United Kingdom, references to "Rand" or "ZAR" are to the lawful currency of South Africa, references to "Cdn$" are to the lawful currency of Canada, references to "US dollars" or "US$" are to the lawful currency of the United States, references to "CHF", "Swiss Francs" or "Swiss francs" are to the lawful currency of Switzerland, references to "ARS" are to the lawful currency of Argentina, references to "CLP" are to the lawful currency of Chile and references to "Lilangeni" are to the lawful currency of Swaziland.

The Offer Price is in pounds sterling. On 18 March 2002 (being the latest practicable date prior to the publication of this document), the exchange rate from pounds sterling to Canadian dollars was £0.4417 = Cdn$1.00, based on the Bank of Canada noon exchange rate.

Unless otherwise indicated the financial information contained in this document has been expressed in US dollars. In addition, solely for convenience, this document contains translations of relevant currencies to US dollars at specified rates. These translations should not be construed as representations that the relevant currency could be converted into US dollars at the rate indicated or at any other rate.

The basis of translation of Australian dollars and Rand amounts into US dollars for the purpose of inclusion in the financial information set out in Part VI and Part VII are shown below.

Australian dollars

	Average rate	Period end rate
Year ended 31 December 1999	1.5498	1.5310
Year ended 31 December 2000	1.7255	1.7974
Year ended 31 December 2001	1.9352	1.9556

Rand

	Average rate	Period end rate
Year ended 30 September 1999	6.0341	6.0157
Year ended 31 December 1999	6.1139	6.1558
Year ended 31 December 2000	6.9387	7.5550
15 months ended 31 December 2000	6.7779	7.5550
Year ended 31 December 2001	8.6249	12.0900

The basis of translation of foreign currency amounts for the purpose of inclusion in the financial information set out in Part VI is described in that Part. Information derived from this financial information set out elsewhere in this document has been translated on the same basis.

Ore reserve and mineral resource reporting – basis of preparation

Other than as set out below, ore reserves and mineral resources reported in this document comply with the "Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves". This Code is subtitled "Report of the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia", and is commonly referred to as the "JORC Code". The edition of the JORC Code in force as at the date of this document is dated September 1999. The JORC Code recognises a fundamental distinction between resources and reserves. Resources are based on mineral occurrences quantified on the basis of geological data and an assumed cut-off grade, and are divided into Measured, Indicated and Inferred categories reflecting decreasing confidence in geological and grade continuity. No allowances are included for dilution and losses during mining, but the reporting of resource estimates carries the implication that there are reasonable prospects for eventual economic exploitation. Resources may therefore be viewed as the estimation stage prior to the application of more stringent economic criteria for reserve definition, such as a rigorously defined cut-off grade and mine design outlines, along with allowances for dilution and losses during mining. Under this system of reporting, it is common practice for companies to include in the resource category material with a high expectation of conversion to reserves, but for which the required detailed mine design work has not yet been undertaken.

Ore reserves as defined by the JORC Code are designated as Proved and Probable and are derived from the corresponding Measured and Indicated Resource estimates by including allowances for dilution and losses during mining. It is an explicitly stated further requirement that other modifying economic, mining, metallurgical, marketing, legal, environmental, social and governmental factors also be taken into account. Reporting conventions that may be adopted are to report resource estimates as including that portion separately assigned to the Proved and Probable category, or to report resources as additional to that portion separately assigned to the Proved and Probable category.

Other than as set out below, the reserve and resource estimates provided in this document comply with the reserve and resource definitions of the JORC Code. The resource estimates shown include that portion separately assigned to, and presented as, Proved and Probable Reserves. As permitted by the JORC Code, Proved and Probable ore (coal) reserves are combined in certain places in this document and reported as "Recoverable Reserves". The relevant definitions from the September 1999 edition of the JORC Code can be found in "Definitions and glossary of technical terms" in Part X.

In this document, resource and reserve estimates are reported as at 31 December 2001, except for:

- the Rietspruit, Douglas and Middelburg coal mines in South Africa for which resource and reserve estimates are reported as at 31 December 2000;
- the coal mines in the Enex Group for which resource and reserve estimates are reported as at 30 November 2001 other than the Ravensworth Group coal mines for which resource and reserve estimates are reported as at 28 February 2002; and
- the Maloma mine in Swaziland.

Resource and reserve estimates in relation to the Maloma mine have not been audited under the JORC Code.

Inferred Resources

The reserves and resources tables in Part I and the competent persons' reports in Part IX make reference to "Inferred Resources". An Inferred Resource is that part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. This categorisation is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.

Resources and reserves, production and sales

In this document, unless expressly stated otherwise, references to resources and reserves are to attributable resources and attributable reserves. Attributable resources means that part of the resources from a mine in which the Xstrata AG Group, the Enex Group or the Duiker Group, as the case may be, has an economic interest. Attributable reserves means that part of the reserves from a mine in which the Xstrata AG Group, the Enex Group or the Duiker Group, as the case may be, has an economic interest. Attributable resources and attributable reserves therefore exclude resources and reserves attributable to minority interests in controlled subsidiaries and the interests of joint venture partners. Reserves are a subset of resources and are included in resource estimates.

In this document, production has been measured in two ways:

- ***Mine production*** or ***total production*** or ***total mine production.*** Mine production or total production or total mine production is equal to the total production from a particular mine or operation for the whole year regardless of ownership of that mine or that operation.
- ***Attributable production.*** Attributable production is that part of mine, total or total mine production in which the Xstrata AG Group, the Enex Group or the Duiker Group, as the case may be, had an economic interest at the relevant time. It therefore excludes production attributable to minority interests in controlled subsidiaries and the interests of joint venture partners.

In this document, sales by volume have been measured in two ways:

- ***Total sales*** or ***total mine sales.*** Total sales or total mine sales is equal to the total sales from a particular mine or operation for the whole year regardless of ownership of that mine or that operation.
- ***Attributable sales.*** Attributable sales is that part of sales from a particular mine or operation in which the Xstrata AG Group, the Enex Group or the Duiker Group, as the case may be, had an economic interest at the relevant time. It therefore excludes sales attributable to minority interests in controlled subsidiaries and the interests of joint venture partners.

Cost curves

This document contains references to "cost curves". A cost curve is a graphic representation in which the total production volume of a given commodity across the relevant industry is arranged on the basis of average unit costs of production from lowest to highest to permit comparisons of the relative cost positions of particular production sites, individual producers or groups of producers across the world or within a given country or region. Generally, a producer's position on a cost curve is described in terms of the particular quartile or tercile in which the production of a given plant or producer or group of producers appears.

The cost curves referred to in this document have been obtained by the Xstrata AG Group from independent industry analysts with recognised experience in constructing cost curves for the relevant commodities, namely AME, Brook Hunt and CRU. To construct cost curves, these analysts compile information from a variety of sources, including reports made available by producers, site visits,

personal contacts, trade publications and other analysts' reports. Although producers may thus participate to some extent in the process through which cost curves are constructed, they are typically unwilling to validate cost analyses directly because of commercial sensitivities. Inevitably, assumptions must be made by the analyst with respect to data that such analyst is unable to obtain and judgement must be brought to bear in the case of virtually all data, however obtained. In addition, the time required to produce cost curves means that even the most recent available examples will be unable to take account of recent developments; in some cases, the most recent available cost curve may be based on data that is several years old. Costs data for specific producers may be based on costs incurred by the producers over their respective accounting years; to the extent these differ, the direct comparability of their costs may be limited. The cost curves referred to in this document reflect direct cash costs of production only, and exclude non-cash or indirect costs (such as depreciation, interest and unrelated overhead expenses) and costs relating specifically to marketing and export. The ferrochrome cost curve excludes indirect costs but includes delivery costs. Delivery costs reflect estimates for each producer to accepted selling points, based on actual sales. They include estimates for all costs involved in delivery, including freight, insurance, warehousing and financing costs as well as sales commissions. Moreover, all cost curves embody a number of significant assumptions with respect to exchange rates and other variables. In summary, the manner in which cost curves are constructed means that they have a number of significant inherent limitations.

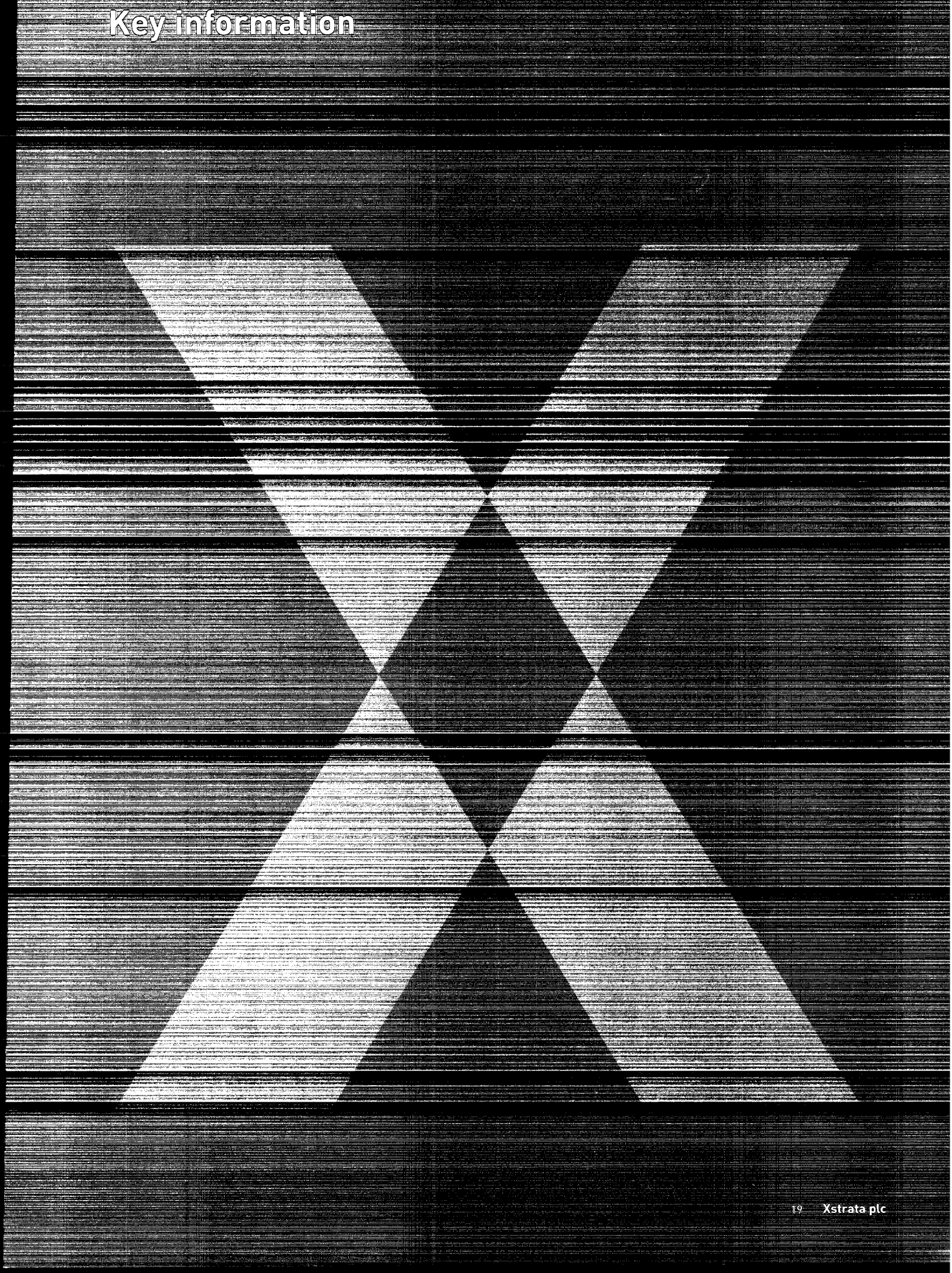
In certain cases, cost curves produced by more than one reputable industry analyst may exist with regard to a specific commodity. The methodologies employed and conclusions reached by such analysts may differ. Moreover, the reliability of any given cost curve may be difficult to assess, as the accuracy of the data, and the reasonableness of the assumptions on which it has been based, usually cannot be tested directly. Particular producers are, however, in a position to validate the accuracy of the presentation with respect to their own costs, which can provide a useful indication of the reliability of a cost curve overall and, notwithstanding their shortcomings, independently produced cost curves are widely used in the industries in which the Group operates.

The specific cost curves to which this document refers are the most recent cost curves which have been obtained by the Xstrata AG Group from the independent industry analysts named above. All such cost curves are based on 2001 data. Whilst the Directors have satisfied themselves that the Group's own production costs are accurately represented, the Group is not in a position to verify directly the cost data on other producers from which these cost curves were constructed or to update such data.

Forward-looking statements

Certain statements contained in this document, including those under the captions "Key information", "Information on the Group", "Relationship with Glencore", "Investment considerations", "Operating and financial review", "Financial information" and "Competent persons' and technical reports", constitute "forward-looking statements". Such forward-looking statements involve risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Group, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such risks, uncertainties and other factors include, amongst others, general economic and business conditions, industry trends, competition, changes in government regulation, currency fluctuations (including the A$/US$ and the ZAR/US$ exchange rates), the Group's ability to recover its reserves or develop new reserves and changes in business strategy or development plans and other risks described in "Investment considerations" in Part IV. There can be no assurance that the results and events contemplated by the forward-looking statements contained in this document will, in fact, occur. These forward-looking statements speak only as at the date of this document. The Company will not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this document except as required by law or by any appropriate regulatory authority.

Key information



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The following summary information does not purport to be complete and is taken from, and is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this document. Certain of the terms used in this document are defined in "Definitions and glossary of technical terms" in Part X.

This section assumes that the Acquisitions and the Merger have become effective and the transactions relating to the Acquisitions and the Merger have been completed. See "Presentation of information – Presentation of business information".

Investors should read the whole of this document and not just rely upon key or summarised information.

Overview

The Group is an international natural resources group based in Switzerland. The Group focuses on low cost operations and has a significant market share in export thermal coal, zinc metal and primary vanadium production and has a leading market share in ferrochrome production. The Group comprises three major businesses:

- the Coal Business, which has interests in 28 operating coal mines, 14 of which are located in Australia and 14 of which are located in South Africa;
- the Zinc Business, which has a zinc mining and smelting operation in Spain; and
- the Ferroalloys Business, comprising the chrome operations and the vanadium operations, which has integrated production facilities in South Africa and Australia.

In addition, the Group has a magnesium re-cycling facility in North America and a forestry plantation in Chile.

The Group's strategy is to achieve growth as a natural resources business and enhance overall value for its shareholders.

The Group is headquartered in Zug, Switzerland. The Xstrata AG Group has approximately 4,800 employees world-wide. Immediately following the completion of the Acquisitions, the Group is expected to have approximately 11,500 employees world-wide.

Summary description of the business

Coal Business

The Group's Coal Business, which is comprised of the Australian and South African coal operations, is one of the world's largest export thermal coal producers with interests in a portfolio of cost competitive mines. In the year ended 31 December 2001, the Enex and Duiker Groups' combined attributable sales were approximately 36.5 million tonnes, with approximately 53% of those sales coming from the Enex Group. The Group focuses primarily on the export of thermal coal for use in electricity generation although it also exports semi-soft coal for use in steel manufacturing. The Group also exports thermal coal for use in domestic electricity generation and, in South Africa, for use in various industrial applications. The Group's Proven and Probable Reserves exceed 1.4 billion tonnes of coal and, at the current rate of production, the Company estimates that those reserves will support mining in excess of 20 years. In addition, the Group's Measured and Indicated Resource base exceeds 5.4 billion tonnes of coal.

Zinc Business

The Group's Zinc Business is one of the largest (in terms of capacity) and among the lowest cost producers of zinc metal in the world. The Zinc Business's main activities are the production of zinc metal and the mining of zinc bearing ores. Its operating facilities comprise the San Juan de Nieva smelting plant (which, following an expansion of the plant's capacity in July 2001, has total production capacity of 460,000 tonnes per annum), the Reocín mine, the Hinojedo roasting facility and the Arnao manufacturing plant. For the year ended 31 December 2001, the Zinc Business's total production of zinc metal was approximately 390,000 tonnes and its saleable production was approximately 370,000 tonnes.

Ferroalloys Business

Chrome operations. The Group's chrome operations are the world's largest producer of ferrochrome (in terms of both attributable production and attributable sales) and among the lowest cost producers of ferrochrome with attributable ferrochrome production capacity exceeding 1.3 million tonnes per annum, representing approximately 25% of global capacity. The chrome operations' assets are situated in South Africa and consist of three operating chromite mines and 16 ferrochrome furnaces (two of which are in a 50% production joint venture). The chrome operations are also entitled to utilise ore from a fourth operating mine pursuant to a joint venture arrangement. The attributable ferrochrome production of the chrome operations for the year ended 31 December 2001 was approximately 861,000 tonnes.

Vanadium operations. The Directors believe that the Group's vanadium operations are one of the world's leading producers of primary vanadium, consisting of three integrated mining and vanadium pentoxide recovery plants, two situated in South Africa and one in Australia, and a recently commissioned ferrovanadium conversion facility in South Africa. Combined capacity for the vanadium operations' three plants is approximately 46 million pounds of vanadium pentoxide equivalent per annum, which the Company believes represents approximately 18% of estimated global capacity. For the year ended 31 December 2001, the vanadium operations' total production was approximately 39 million pounds of vanadium pentoxide equivalent.

Additional activities

The Group's additional activities are comprised of the magnesium operation, consisting of a magnesium re-cycling facility in North America and the forestry operation, consisting of a *eucalyptus globulus* forestry plantation in Chile. The magnesium re-cycling facility, which was established in 2001, has an initial capacity of 25,000 tonnes per annum, 12,500 tonnes per annum of which has been commissioned. The second production line of 12,500 tonnes per annum will be commissioned in the second half of 2002 and will build up to full production as market conditions allow. The forestry operation is expected to harvest approximately 36,400 bone dry tonnes equivalent in 2002.

Group strategy

The Group's strategy is to achieve growth as a natural resources business and enhance overall value for its shareholders. The Company intends to pursue this strategy by:

- using its critical mass, strong cash flows and financial flexibility to provide a platform for exploitation of high quality acquisition opportunities as they arise;
- increasing performance whilst maintaining its position as a cost competitive producer thereby maximising returns;
- actively managing its asset portfolio in order to increase long-term returns; and
- using its London listing to broaden access to international capital markets.

The Group recognises that the health and safety of its employees and the maintenance of high environmental performance standards are significant responsibilities involved in the conduct of its operations. The Group's aim is to be recognised as a leader in health, safety and environmental management.

The Directors believe that the above factors combined with its strong management team and the Group's commercial arrangements with Glencore will put the Group in a strong position to pursue its strategies of growth and increasing returns for its shareholders.

Key strengths

The Directors believe that the key strengths of the Group are:

- **Significant producer and cost competitive operator.** The Group is amongst the largest producers of export thermal coal, zinc metal, ferrochrome and primary vanadium with significant reserves of coal, chrome ore and vanadium ore. The Zinc Business and chrome operations, in particular, are amongst the lowest cost producers of their respective commodities.

- **Diversified business.** The Group has a diversified business, in terms of the range of commodities it produces, the geographical location of its assets and its customer base.
- **Proven senior management.** The Group's senior management have significant experience and technical expertise in the natural resources sector and international capital markets.
- **Ongoing commercial relationship with Glencore.** The Group's commercial arrangements with Glencore will provide it with additional market intelligence, access to customers and marketing expertise.

Selected financial information

The table below provides certain unaudited pro forma combined financial information in relation to the Group. The information has been prepared using information extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII. See "Presentation of information – Pro forma financial information".

	At 31 December 2001		
Business	**Group tangible fixed assets US$ million**	**Group net current assets US$ million**	**Group net assets US$ million**
Coal	2,688	101	2,088
Zinc	388	95	548
Ferroalloys	329	123	295
Additional activities	55	1	47
Unallocated assets/(liabilities)	–	44	(462)
Group Total	**3,460**	**364**	**2,516**

Basis of preparation: The above table is for illustrative purposes only and may not, because of its nature, give a true picture of the financial position of the Group and has been extracted, without material adjustment, from the pro forma unaudited combined constructed financial information set out in Part VII.

The table below provides pro forma unaudited combined constructed illustrative financial information in relation to the Group for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in more detail in "Presentation of information – Pro forma unaudited combined constructed illustrative financial information".

	Year ended 31 December 2001					
	Turnover[1]		**EBITDA[1]**		**EBIT[1]**	
Businesses/operations	**US$ million**	**As a percentage of the Group**	**US$ million**	**As a percentage of the Group**	**US$ million**	**As a percentage of the Group**
Coal	1,145	61%	416	71%	311	80%
Zinc	383	20%	101	17%	67	17%
Ferroalloys						
Chrome	258	14%	64	11%	59	15%
Vanadium	63	3%	9	2%	(42)	(11)%
Additional activities	26	2%	(3)	(1)%	(4)	(1)%
Group combined before common costs	1,875	100%	587	100%	391	100%
Less: common costs	N/A	N/A	(10)	N/A	(12)	N/A
Group combined	**1,875**	**N/A**	**577**	**N/A**	**379**	**N/A**

(1) Includes share of joint ventures and associates.

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the Group as if the Acquisitions and the acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Current trading and prospects

The operating performance of the Group is influenced, to a significant degree, by commodity prices and exchange rates, primarily the Rand/US$, the A$/US$ and the Euro/US$ exchange rates.

Coal Business

The Australian operations. Since 31 December 2001, the Australian operations have experienced high demand in certain key markets whilst unit prices have generally remained steady. Attributable sales for January and February 2002 amounted to approximately 3.7 million tonnes compared with a budget of 3.5 million tonnes for that period. Attributable sales have also been considerably higher than those achieved by the Australian operations in January and February 2001 partly as a result of the acquisitions of several mines during 2001. Attributable sales during January and February 2002 were higher than attributable sales (including attributable sales from those mines acquired in 2001) for the corresponding period in the prior year. Average prices achieved by the Australian operations for export coal, which accounts for over 90% of sales, have varied between US$28.15 to US$34.75 per tonne. See "Financial information – Expected cash flow requirements – Turnover and operating costs" in Part VI.

The Australian dollar has strengthened slightly against the US dollar since 31 December 2001 although average rates are consistent with those experienced during 2001. The Enex Group had hedged forward its exposure to Australian dollar commitments. Accordingly, the movement in exchange rates has had limited impact upon the results of the Australian operations during the current period.

The Directors currently expect that the trading volumes of the Australian operation will be significantly higher than in 2001 due principally to the effect of the mines acquired during 2001 but also as a result of increased production and demand. The potential impact resulting from movements in the Australian dollar is expected to continue to be largely hedged. The Directors expect the combination of these features to have a positive impact upon activity levels and margins.

The South African operations. Attributable sales for the South African operations for January and February 2002 amounted to 2.5 million tonnes compared with attributable sales achieved in January and February 2001 of 2.8 million tonnes. Average prices achieved by the South African operations for export coal and domestic coal since 31 December 2001 have been marginally lower than the forecast for 2002 of US$29.60 per tonne and US$8.32 per tonne, respectively. See "Financial information – Expected cash flow requirements – Turnover and operating costs" in Part VI.

Average Rand/US$ exchange rates have remained broadly constant since 31 December 2001 as compared with prevailing rates during December 2001. Trading results for February 2002 indicate a performance slightly better than that of the corresponding period of the prior year.

The Directors expect the South African operations to maintain steady sales volumes during the remainder of 2002.

Zinc Business

Production and sales volumes of the Zinc Business have increased during the first two months of 2002 compared to volumes experienced in the corresponding period in the prior year reflecting the expansion of the San Juan de Nieva smelting plant's capacity in July 2001. Market prices for zinc declined during January and February 2002 to levels below those observed at the end of 2001. The Directors expect total sales volumes for refined zinc in 2002 to exceed volumes experienced in 2001 as a result of the Zinc Business's increased smelting capacity.

Ferroalloys Business

The results of the Ferroalloys Business improved during the first two months of 2002 compared to the corresponding period in the prior year. Sales volumes of the vanadium operations have increased during the first two months of 2002 compared to the volumes experienced in the corresponding period in the prior year although prices have declined and are below the levels experienced during the corresponding period in the prior year.

Prices for ferrochrome remain close to historic lows but have marginally improved during the first two months of 2002 although prices remain lower than those experienced in the corresponding period in the prior year. Attributable sales of ferrochrome were higher than those achieved during the corresponding period in the prior year reflecting improved trading conditions compared to the weak conditions observed in the corresponding period in the prior year.

The Directors believe that sales of both ferrochrome and vanadium will continue to recover during the remainder of 2002.

The average Rand/US$ exchange rate during January and February 2002 has been weaker than the average Rand/US$ exchange rate during the same period in the prior year and this has partly led to the improved profitability of the Ferroalloys Business in US dollar terms. The average Rand/US$ exchange rate has remained broadly constant during the current period.

The Group

As described above, the Group's trading and prospects are influenced to a significant degree by commodity prices and exchange rates against the US dollar.

Management expects that the completion of the Acquisitions, the Merger and Admission will create a platform for growth and provide the Group with increased access to international capital markets. The Group will utilise this platform to pursue further acquisitions and to fund the ongoing development of its existing businesses. In particular, the Group will seek to maintain its position as a cost competitive producer thereby maximising returns.

The Directors are satisfied with the current trading and prospects of the Group.

The acquisition of the Coal Assets and the Merger

The acquisition of the Coal Assets

On 21 February 2002, the Purchasers, Xstrata AG and the Vendors entered into the Acquisition Agreement pursuant to which the Company, Xstrata (Schweiz) AG and Xstrata South Africa agreed to purchase the Coal Assets for US$2,067,910,000 (which includes an agreed amount relating to working capital of US$73,000,000), in addition to which the Company has agreed to assume net indebtedness of the Duiker and Enex Groups and procure the repayment of shareholder loans to Glencore International, resulting in a total value of US$2,573,000,000. The effective date of the Acquisitions will be 1 January 2002. The purchase price payable for the Coal Assets will be satisfied partly in cash and partly by an issue of shares by the Company. The cash element will be funded in part from the proceeds of the Global Offer and in part from the Syndicated Loan Facility. Completion of the Acquisitions is subject to a number of conditions including Admission.

The Directors believe that the Acquisitions will be earnings enhancing from Completion and will earn returns in excess of the Group's cost of capital at long-term Australian export thermal coal prices as low as US$26 per tonne.

The Merger

Pursuant to the Merger the entire undertaking of Xstrata AG, including all of its assets, will be transferred to the Company in consideration for which the Company will issue Ordinary Shares to the former shareholders of Xstrata AG in proportion to their respective holdings of Xstrata AG Shares and the Company will assume all of Xstrata AG's liabilities.

It is anticipated that the Merger, Completion and Admission will occur simultaneously. See "Information on the Group – The acquisition of the Coal Assets and the Merger" in Part I.

Relationship with Glencore

Immediately following the completion of the Merger and Admission, Glencore International will own 40% of the issued ordinary share capital of the Company (even if the Manager's Option is exercised, see "The Global Offer and related matters – Glencore Option Shares" in Part III) and will be regarded as a controlling shareholder of the Company for the purposes of the Listing Rules. The Company and Glencore International have entered into the Relationship Agreement, the principal purpose of which is to ensure that following Admission the Group is capable of carrying on its business independently of Glencore and that transactions and relationships with Glencore are at arm's length and on normal commercial terms. See "Relationship with Glencore – Relationship with controlling shareholder" in Part II and "Additional information – Material contracts" in paragraph 18 of Part VIII.

In addition to the Relationship Agreement, Glencore has entered into various other agreements with members of the Group including various agency agreements pursuant to which Glencore provides marketing services to members of the Group. See "Relationship with Glencore – Commercial relationship" in Part II.

Investment considerations

Prior to investing in the Ordinary Shares prospective investors should consider, together with the other information contained in this document, the investment considerations set out in Part IV.

Dividend policy

The Directors intend to adopt a progressive dividend policy which will take into account the underlying growth in earnings of the Group, as well as its capital requirements and cash flows, whilst maintaining an appropriate level of dividend cover. However, as a company incorporated in England and Wales, the Company may only pay dividends if distributable profits are available for the purpose; as a holding company, the Company will be dependent upon dividends and interest distributed to it by its subsidiaries.

For illustrative purposes, and assuming that the Group had been in existence and the Ordinary Shares admitted to trading on the London Stock Exchange since 31 December 2000 with the capital structure of the Group which is expected to be in place on Admission (but excluding the Global Offer and related net proceeds), and on the basis of results to date, the Directors have estimated that they would have recommended an aggregate dividend in respect of the year ended 31 December 2001 of 21.75p per Ordinary Share. This would give a notional dividend yield of approximately 2.5% based on the Offer Price.

The Directors intend that the Company will pay a final dividend in April 2003 in respect of the year ending 31 December 2002 and an interim dividend in September 2003 in respect of the half year to 30 June 2003. Thereafter, the Directors intend that interim and final dividends will be paid in September and April in each year in the approximate proportions of one-third and two-thirds of the total annual dividend, respectively.

The Company publishes its accounts in US dollars. Any dividends declared by the Company will generally be paid in US dollars unless a Shareholder elects to receive dividends in pounds sterling, Euro or Swiss Francs. Fluctuations in the exchange rate between pounds sterling, Euro or Swiss Francs and US dollars will affect the pounds sterling, Euro or Swiss Franc amount received in respect of dividend payments declared in US dollars by the Company.

As the Company is Swiss tax resident, dividends paid by the Company will be subject to Swiss federal withholding tax. Swiss federal withholding tax is currently charged at the rate of 35%. Shareholders who are residents of countries that have double taxation agreements with Switzerland will generally be entitled to a refund of part of that withholding tax from the Swiss authorities but the refund is partial only and a Shareholder can only obtain the refund by submitting the relevant claim forms to the Swiss authorities. For further information see "Additional information – UK Taxation", "Additional information – Swiss Taxation" and "Additional information – US Taxation" in paragraphs 15,16 and 17, respectively, of Part VIII.

The Global Offer

The Global Offer comprises an issue of 100,000,000 new Ordinary Shares (assuming that the Manager's Option is not exercised).

Assuming that the Manager's Option is not exercised, the Company is raising approximately £829 million (US$1,181 million) pursuant to the Global Offer, net of underwriting commissions and other fees and expenses.

Admission is expected to take place and dealings in the Ordinary Shares are expected to commence on the London Stock Exchange at 8.00 a.m. (London time) on 25 March 2002. Swiss Admission is expected to take place and dealings in the Ordinary Shares are expected to commence on SWX at 9.00 a.m. (Central European time) on 25 March 2002. Ordinary Shares will be quoted on SWX in Swiss Francs.

The Global Offer comprises an offer to institutional and certain other investors in the United Kingdom, the United States (in reliance upon Rule 144A under the Securities Act or another exemption from, or transaction not subject to, the registration requirements of the Securities Act) and elsewhere.

In connection with the Global Offer, the Company has granted J.P. Morgan Securities Ltd., on behalf of the Underwriters, the Manager's Option which is exercisable in whole or in part, upon notice by J.P. Morgan Securities Ltd., for the period commencing on the date of this document and ending 30 days after Admission. Pursuant to the Manager's Option, J.P. Morgan Securities Ltd., in consultation with the other Joint Bookrunners, may require the Company to issue up to 15,000,000 additional new Ordinary Shares at the Offer Price, inter alia, to cover over-allotments or further allotments, if any, in connection with the Global Offer and to cover short positions resulting from stabilisation transactions. Any Ordinary Shares issued by the Company following the exercise of the Manager's Option will be issued on the same terms and conditions as the Ordinary Shares being issued in the Global Offer.

It is expected that the Company will be considered for inclusion in the FTSE UK index series at the review in June 2002. In addition, the Company has received in principle approval for inclusion in the SPI Index in Switzerland.

Use of proceeds

The Company will receive the net proceeds of the issue of the new Ordinary Shares. The net proceeds are estimated to be approximately £829 million (US$1,181 million) after deduction of the Underwriters' estimated commissions and other fees and expenses of approximately £41 million payable by the Company in connection with the Global Offer and assuming that the Manager's Option is not exercised.

The Company and certain members of the Group have also entered into a US$1.4 billion Syndicated Loan Facility Agreement. Further details of this facility are set out in "Additional information – Agreements relating to the Acquisitions and the Merger – Syndicated Loan Facility Agreement" in paragraph 10 of Part VIII.

The net proceeds of the Global Offer referred to above will be used to fund the Acquisitions, with the remainder of the funding required for the Acquisitions being cash raised from borrowings made under the Syndicated Loan Facility Agreement.

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Information on the Group

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This Part assumes that the Acquisitions and the Merger have become effective and the transactions relating to the Acquisitions and the Merger have been completed. See "Presentation of information – Presentation of business information".

Investors should read the whole of this document and not just rely upon key or summarised information.

Overview

The Group comprises three major businesses:

- **Coal.** The Group's Coal Business, which is comprised of the Australian and South African operations, is one of the world's largest export thermal coal producers with interests in 28 operating coal mines, 14 of which are located in Australia and 14 of which are located in South Africa.
- **Zinc.** The Group's Zinc Business, which consists of a zinc mining and smelting operation in Spain, is one of the largest (in terms of capacity) and among the lowest cost producers of zinc metal in the world.
- **Ferroalloys.** The Group's Ferroalloys Business, which is comprised of the chrome and vanadium operations, is the world's largest producer of ferrochrome (in terms of both attributable production and attributable sales) and among the lowest cost producers of ferrochrome and the Directors believe that the Group is one of the world's leading producers of primary vanadium, with integrated production facilities in South Africa and Australia.

The Group's additional activities are comprised of the magnesium operation, consisting of a magnesium recycling facility in North America and the forestry operation, consisting of a *eucalyptus globulus* forestry plantation in Chile.

History and development of the Group

Xstrata AG, which prior to the Merger becoming effective, has been the holding company of the Xstrata AG Group, was established in Switzerland in 1926 to invest in infrastructure and power projects in Latin America. Between 1926 and 1990 Xstrata AG invested in various companies. In 1990, Glencore International became a substantial shareholder of Xstrata AG, following which Xstrata AG built a portfolio of businesses operating in the natural resources sector.

Over the last 10 years, the Xstrata AG Group has acquired:

- substantially all of the issued share capital of Asturiana, which comprises the Group's Zinc Business;
- Chromecorp and CMI, which form part of the chrome operations in the Group's Ferroalloys Business;
- Rhovan, Vantech and Windimurra, which comprise the vanadium operations in the Group's Ferroalloys Business;
- the process technology for converting magnesium scrap into high purity secondary magnesium alloys, used by the Group's magnesium operation; and
- FLL, which comprises the Group's forestry operation.

Since 1992, Xstrata AG has acquired and, pursuant to its strategy of disposing of its non-core assets, subsequently disposed of interests in oil and gas fields, a coal mine, an aluminium reduction facility and a forestry trading operation. The acquisitions and disposals that have occurred since 1 January 1999 are described in more detail in "Operating and financial review – Factors affecting comparability – Acquisitions and disposals" in Part V.

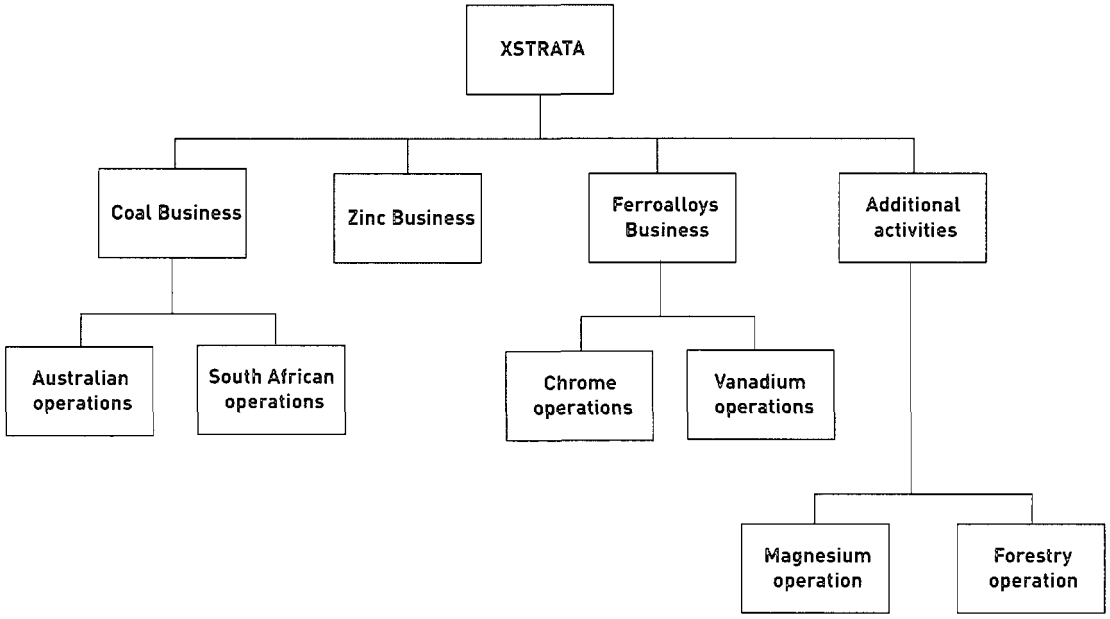
Prior to the Acquisitions, Enex and Duiker were wholly-owned subsidiaries of Glencore International. Since 1994, Glencore has undertaken a number of significant acquisitions in the Australian and South African coal sectors and the assets acquired now form part of the Enex and Duiker Groups. The acquisitions and disposals that have occurred since 1 January 1999 are described in more detail in "Operating and financial review – Factors affecting comparability – Acquisitions and disposals" in Part V.

Following the Acquisitions and the Merger, the Company will be the holding company of a group comprising the existing Xstrata AG Group, the existing Enex Group and the existing Duiker Group.

Description of the business

The Group comprises three major businesses: Coal, Zinc and Ferroalloys. The Group's additional activities comprise the magnesium and the forestry operations.

The following chart summarises the Group's business structure:



The table below provides unaudited combined constructed illustrative financial information in relation to the Group for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in more detail in "Presentation of information – Pro forma unaudited combined constructed illustrative financial information".

	Year ended 31 December 2001					
	Turnover[1]		EBITDA[1]		EBIT[1]	
Businesses/operations	US$ million	As a percentage of the Group	US$ million	As a percentage of the Group	US$ million	As a percentage of the Group
Coal	1,145	61%	416	71%	311	80%
Zinc	383	20%	101	17%	67	17%
Ferroalloys						
Chrome	258	14%	64	11%	59	15%
Vanadium	63	3%	9	2%	(42)	(11)%
Additional activities	26	2%	(3)	(1)%	(4)	(1)%
Group combined before common costs	1,875	100%	587	100%	391	100%
Less: common costs	N/A	N/A	(10)	N/A	(12)	N/A
Group combined	**1,875**	**N/A**	**577**	**N/A**	**379**	**N/A**

(1) Includes share of joint ventures and associates.

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the Group as if the Acquisitions and the acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Coal Business

Summary of the Business

Introduction

The Coal Business is the Group's largest business in terms of profit and turnover, accounting for 80% of EBIT, 71% of EBITDA and 61% of turnover in the year ended 31 December 2001 on an unaudited combined constructed illustrative basis. See further "– Coal Business – Summary of the Business – Financial information" in this Part I.

The Group is one of the world's largest export thermal coal producers with interests in a portfolio of cost competitive mines, comprising 14 operating coal mines in Australia and 14 operating coal mines in South Africa. In the year ended 31 December 2001, the Enex and Duiker Groups' combined attributable sales were approximately 36.5 million tonnes, with approximately 53% of those sales coming from the Enex Group. The Group focuses primarily on the export of thermal coal for use in electricity generation. The Group also exports semi-soft coal for use in steel manufacturing and supplies thermal coal for use in domestic electricity generation and, in South Africa, for use in various industrial applications. The Company estimates that in 2001, the Australian operations supplied approximately 20% of Australia's thermal coal exports and approximately 15% of its total semi-soft coking coal exports and the South African operations supplied approximately 20% of South Africa's thermal coal exports. The Group's Australian operations export primarily into Asia, particularly Japan. The majority of the exports of the Group's South African operations are to Europe. Semi-soft coal production represents approximately 20% of the Australian operations' output and is exported predominantly to the Asian steel industry. Approximately 11% and 25% of the combined Enex and Duiker Groups' attributable sales in the year ended 31 December 2001 were sold into the Australian and South African domestic markets, respectively. The Group has an economic interest in the three major coal port facilities used to load its coal for export, two in Australia (the Port Waratah Coal Terminal and the Port Kembla Coal Terminal) and one in South Africa (the Richards Bay Coal Terminal).

The Group manages the majority of its mining capacity. In some cases, the Group employs mining contractors and, in other cases, its mining interests are operated by the Group's joint venture partners. In the latter case, the Group participates on management committees. A number of the Group's mines have minority participants, which in Australia are primarily Japanese companies or subsidiaries of Japanese companies.

The Group's Proved and Probable Reserves exceed 1.4 billion tonnes of coal and, at the current rate of production, the Company estimates that those reserves will support mining in excess of 20 years. The Group's Measured and Indicated Resource base exceeds 5.4 billion tonnes of coal, which provides numerous expansion opportunities for additional production.

The Coal Business's marketing strategy is to take advantage of its three key marketing strengths:

- *Substantial production volume from a diversified asset base which is enhanced by selective blending at port and supply flexibility.* The Company believes that the Coal Business is benefiting from an increasing trend among major coal buyers to purchase from larger coal producers in order to reduce logistical and administrative expenses. In this respect, the Group's volume of production is a significant competitive advantage. The Coal Business, through selective blending, is also able to enhance the value of lesser quality coals, to minimise production costs by producing coals according to its optimal beneficiation yield and to realise significant operational and geological synergies among its mines;
- *Its relationship with Glencore, a leading coal trader.* Glencore, which has a network of 69 field offices in over 50 countries, prepares detailed supply and demand models which facilitate the marketing of the Coal Business's coal with the objective of achieving a superior price. Glencore also provides opportunities for selling the Coal Business's coal onto the shorter term coal market; and
- *The ability to offer major buyers generic branded coal (rather than coal sourced from a single mine).* In the past, coal producers and customers marketed and bought coal from individual mines. This practice reflected the wide diversity of mine ownership. In conjunction with industry rationalisation, major customers are increasingly receptive to producers marketing "generic" branded coals. These are coals that meet the customers' specifications irrespective of the source mine. This creates significant efficiencies for both producers and customers, which are available to the Coal Business because of its diverse asset base and co-ordinated management.

See "– Australian operations – Sales and marketing of the Australian operations' coal" and "– South African operations – Sales and marketing of the South African operations' coal" in this Part I.

The primary focus of the Coal Business's marketing strategy is to maximise sales of its thermal and semi-soft coking coals into the export market. Sales to the domestic market will continue to be pursued when attractive, both through the renewal of existing contracts and the identification of new selling opportunities. The Coal Business will continue to seek to maximise sales into the premium end of the export market, which for its Australian operations is the large Asian power industry. The Directors consider that this sector of the market will continue to be the major growth area for Australian thermal coals and has traditionally paid a premium over other coal buyers to ensure secure sources of supply.

The Coal Business's semi-soft production is exported predominantly to the major steelmakers in Japan, Korea and Taiwan. New markets are also being developed in India, Brazil and Europe. Given the current financial position of the Asian steel industry, there is an increased impetus on cost reduction which is causing these mills to maximise the usage of lower priced semi-soft coking coals, both through the replacement of hard coking coal in the coke blend as well as further increases in the Pulverized Coal Injection ratio.

The main goods and services purchased by the Coal Business are mining equipment and replacement parts, explosives, fuel, tyres and lubricants and freight, rail and port handling services. The supplier base providing these goods and services has been relatively consistent in recent years and the Company believes the Group has established strong relationships with key suppliers in both Australia and South Africa.

The Enex and Duiker Groups have been active acquirors of coal mines and have been actively involved in the consolidation of the coal industry in Australia and South Africa. The Directors believe that there is scope for further consolidation of the Australian coal sector and the Group will continue to consider acquisition opportunities as they arise. Although the Directors do not expect significant acquisition opportunities to arise in South Africa, the Group has identified opportunities for consolidation of the South African operations' reserves through reserve swaps with other producers. In addition, other countries, such as Colombia, may offer the Group growth opportunities.

The Coal Assets are being acquired by the Purchasers pursuant to the Acquisition Agreement. For further information relating to the terms of the Acquisitions, and certain related matters in connection with the Acquisitions, see "– The acquisition of the Coal Assets and the Merger" in this Part I.

Resource and reserve base

The table below sets out the Group's attributable coal resource and reserve base, as extracted without material adjustment and combined from the Minarco and Weir International Mining Consultants competent persons' reports contained in Part IX:

	Reserves (Mt)			Resources (Mt)	
	Proved Reserves	Probable Reserves	Marketable Reserves	Measured and Indicated Resources	Inferred Resources[1]
Australia[2]	323	461	617	2,652	1,130
South Africa[3]	354	283	381	2,770	1,818
Total Coal Business	677	744	998	5,422	2,948

(1) See "Presentation of information – Inferred Resources" for an explanation of the basis of calculation of Inferred Resources.

(2) Reserves are a subset of resources and are included in the resource estimate. The resource and reserve figures tabulated for Australia are attributable resources and attributable reserves as at 30 November 2001 other than for the Ravensworth Group mines which is as at 28 February 2002. See "Presentation of information – Ore reserve and mineral resource reporting – basis of preparation" for an explanation of the basis of preparation of reserve amounts.

(3) Reserves are a subset of resources and are included in the resource estimate. The resource and reserve figures tabulated for South Africa are attributable resources and attributable reserves and for the Duiker Group managed mines are as at 31 December 2001 and for Ingwe managed joint venture mines are as at 31 December 2000. See "Presentation of information – Ore reserve and mineral resource reporting – basis of preparation" for an explanation of the basis of preparation of reserve amounts.

Production

The tables below sets out the mine production and attributable production of the Coal Business (broken down between the Australian and South African operations) for the year ended 31 December 2001. Mine production and attributable production figures have been extracted without material adjustment and combined from the Minarco and Weir International Mining Consultants competent persons' reports contained in Part IX:

Mine Production[1]	Year ended 31 December 2001 (in Mt)
Australia	31.5
South Africa	42.9
Total Coal Business	**74.4**

(1) See "Presentation of information - Resources and reserves, production and sales" for an explanation of the basis of preparation of the production amounts.

Attributable Production[1]	Year ended 31 December 2001 (in Mt)
Australia	20.2
South Africa	17.8
Total Coal Business	**37.9[2]**

(1) See "Presentation of information - Resources and reserves, production and sales" for an explanation of the basis of preparation of the production amounts.

(2) Due to rounding, numbers in table may not add up.

Financial information

The table below provides pro forma unaudited combined constructed illustrative financial information in relation to the Coal Business for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in further detail in "Presentation of information – Pro forma unaudited combined constructed illustrative financial information".

Coal	Year ended 31 December 2001 (US$000)	As a percentage of the Group
Turnover[1]	1,144,626	61%
EBITDA[1]	416,014	71%
EBIT[1]	311,465	80%

(1) Includes share of joint ventures and associates.

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the Coal Business as if the Acquisitions and the acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Cost curve

A cost curve provided by AME for 2000-2001 ranks the Group's Australian and South African coal operations, on a weighted average basis, in the second quartile among major export producers of thermal and semi-soft coal world-wide. While primarily based on 2000 production, the mines have been costed and weighted for the purposes of this cost curve using exchange rates and equity ownership interests prevailing in 2001. See "Presentation of Information – Cost curves".

Industry overview

Background

Coal is one of the world's most extensive, affordable and geographically diverse natural sources of energy. The black or hard coal industry is divided into two key markets: coking and thermal coal. Thermal coal is also referred to as steaming coal and is used in the combustion processes by electricity producers and industrial users to produce steam for electricity and heat. Coking coal is principally used to produce coke, which is then used as a reductant in blast furnaces for the production of steel. Semi-soft coking coal exhibits some coking properties and

is blended with hard and semi-hard coking coals to produce coke. Some semi-soft coking coals are also used for Pulverized Coal Injection for direct feed into the blast furnace. Certain grades of semi-soft coking coal can be economically processed for use as thermal coals.

Coal is currently the cheapest fossil fuel on a contained heat basis and prices have historically remained significantly below the price of oil or natural gas. Coal retains a number of other advantages, namely less volatile prices, stable supply from a wide range of politically secure geographic locations and easy and safe storage and transportation by rail or ship. These factors are expected to secure the long-term demand for coal.

In 2000, approximately 3.6 billion tonnes of coal were produced globally, of which approximately 2.9 billion tonnes was thermal coal. A similar quantity of thermal coal is estimated to have been produced in 2001. Of this production of thermal coal, approximately 84% was used for domestic consumption, primarily in China and the United States.

The key coal exporting nations are Australia, China, Colombia, Indonesia and South Africa, which generally ship coal to the Pacific market (Asia) and the Atlantic market (primarily Europe). The seaborne thermal coal market (accounting for approximately 92% of total thermal coal exports in 2000) is the most rapidly growing segment of the global coal industry, having expanded by an average of 6.6% per annum over the five year period to 2000. It is estimated that in 2001 the global seaborne thermal coal market grew by 10% to 368 million tonnes and that over the five year period to 2000 the Pacific and Atlantic export thermal coal markets grew at an average annual rate of 8.6% and 3.0%, respectively.

Supply and demand

Growth in thermal coal demand is closely related to growth in electricity consumption, with approximately 38% of the energy used for global electricity generation accounted for by coal. OECD electricity demand and coal-fired electricity generation increased at an average rate of 2.9% per annum between 1990 and 2000 and total OECD electricity demand is projected to continue increasing from 2000 to 2020, with the highest growth rates expected in Asia. The Company expects that seaborne thermal coal imports will increase to satisfy this growing demand.

Semi-soft coal supplies about 45% of the coal required for the steel making process in Asian steel mills. The consumption of semi-soft coal has been increasing as Asian steel mills strive to reduce raw material costs. When steel demand falls, the steel companies can also extend coking times and use a larger proportion of lower cost semi-soft coking coal in the coke blend.

Continuing strong growth in demand for thermal coal in Asia, particularly in Japan, Korea and Taiwan, is expected. At the same time, imports have been increasing into Europe, particularly into the UK and Germany. Germany has committed to phase out its uneconomic domestic mines between 2002 and 2010. This may lead to a further increase in German imports of thermal coal. Demand has also been affected by the United States, which was traditionally an exporter of thermal coal, but has since the beginning of 2001 become a net importer of thermal coal.

On the supply side, there has been significant consolidation in the coal industry over the last four years. In 1998, approximately 44% of the thermal coal exported from Australia, South Africa and Colombia was produced by four exporters. In 2002, this percentage has increased to approximately 73%. Further consolidation is expected as the last of the oil companies operating in the thermal coal industry exit the industry.

In South Africa, expansion opportunities are limited due to the majority of economic reserves in South Africa being fully exploited and the ability to expand the Richards Bay Coal Terminal being restricted. The Richards Bay Coal Terminal currently has a capacity of 72 million tonnes per annum with plans in place to expand it to 82 million tonnes per annum over the next five years. It is unlikely that any further expansion of the Richards Bay Coal Terminal will take place.

The Asian thermal coal market has historically been supplied by Australia. However, the last decade has seen growth in two further supply countries, Indonesia and more recently China.

China's domestic electricity consumption is forecast to grow at an average of 5% per annum over the next 20 years. Coal currently accounts for 68% of China's electricity production and this percentage is not expected to decrease. Despite the growth in exports of thermal coal out of China over the last couple of years, domestic growth is forecast at a rate beyond that at which China will be able to maintain its export growth.

Pricing and costs

The price of thermal coal is largely driven by the prevailing coal supply and demand balance and market outlook. In addition, different qualities of thermal coal attract different prices according to their specific heat, ash, sulphur and chemical contents. Exported thermal coal has a higher heat value, lower sulphur content (1% or less) and lower ash content (15% or less) than that sold into the domestic market. A significant proportion of export coal needs to be washed in order to meet the higher quality requirements of the export market. Due to the fact that semi-soft coal is effectively a high quality thermal coal, its price is largely driven by the thermal coal market but is also influenced by its use in the steel industry.

Costs associated with coal mining can be broadly categorised as labour costs, other on-site costs, royalty payments, freight costs and port loading costs. Export coal is generally sold FOB at the loading port with producers paying transport costs to, and loading costs at, the port. Accordingly, producers selling into the export market with mines close to port with good transport (principally rail) systems have significant cost advantages.

The Australian coal industry is one of the lowest cost producers and, due to its large, high quality reserves located close to its export ports, has significant advantages over many of its major competitors in the export thermal coal trade. In the past, these advantages have been partially offset by relatively high costs of labour, energy, materials and transport (both rail and port). Improvements in each of these areas, together with the recent depreciation of the Australian dollar against the US dollar, have made Australia's export coal industry one of the most cost competitive in the world.

The South African coal industry is the lowest cost export producer. It has relatively low labour and capital costs, low transport costs (which compensate for the relatively long distance to port), shallow mining depths and uncomplicated geology. The depreciation of the Rand against the US dollar has also helped to enhance South Africa's global competitiveness.

Market and outlook

There has been consistent and predictable growth in demand for coal, which has not been significantly impacted by economic cycles or depressed Asian economies. Seaborne coal trade has grown at an average rate of approximately 6% per annum, between the years of 1996 and 2000 and an average rate of approximately 5% per annum growth is expected between the years 2000 and 2005.

Atlantic market. In 2000, coal prices in the Atlantic market rose as a result of a number of factors, including increased thermal coal demand in the United States, a reduction in domestic production due to subsidy cutbacks in Europe and high levels of economic activity. Prices remained strong in early 2001, but declined in the second half due to falling oil and gas prices, the impact of the September 11 terrorist attacks on the United States and increased Chinese exports. Prices have started to recover in early 2002, but have not yet reached the levels experienced in early 2001.

Atlantic coal demand is expected to grow in 2002 and continue to grow in 2003 particularly from the Americas, Spain and Germany.

Asian market. The Asian market experienced significant growth in 2001, with seaborne coal demand growing by approximately 15 million tonnes. This was driven by the high level of economic activity in the United States, which represents a significant market for Asian products. 2001 saw a rapid increase in exports from China which by the third quarter began to have an impact on Asian market prices.

The surge of Chinese exports is not expected to be repeated in 2002 and China is expected to have to significantly increase the level of its coal imports. This, coupled with decreased production and supply by the Australian producers is expected to lead to recovery in prices in 2002 which it is anticipated will be sustained into 2003.

Australian operations

Overview

In the year ended 31 December 2001, the Enex Group's attributable production was 20.2 million tonnes of coal, approximately 87% of which was exported. The Company believes that this represents approximately 9% of all coal exported from Australia. Approximately 67% of the Enex Group's export production was thermal coal. The Group owns interests in 14 operating coal mines and a number of development projects, most of which are located in or close to the Hunter Valley of New South Wales.

The Group has a 13.4% interest in the operator of the Port Waratah Coal Terminal, located at the port of Newcastle, New South Wales which is the world's largest export coal handling operation. The Group also has a 17% interest in the Port Kembla Coal Terminal, located at the port of Wollongong, New South Wales.

The Group holds most of its interests in mines through joint ventures, in which it generally holds a controlling interest. Given the relationships between its joint venture partners and its customers, the Company believes that these joint ventures provide the Group with a valuable link to its customer base.

In Australia the Group has, either on its own account or through its interests in joint ventures, all underlying mining tenements and it has access (whether under freehold, leasehold or otherwise) to all land that is required for the Group's current coal mining operations.

Description of the Australian operations' assets

The following table sets out certain information about each of the Group's operating Australian coal mines extracted without material adjustment from the Minarco competent person's report contained in Part IX:

			2001 Production (Mt)[2]		2001 Sales (Mt)[3]	
Coal mine	**Type of mine[1]**	**The Group's attributable interest (%)**	**Mine production**	**Attributable production**	**Total mine sales**	**Attributable sales**
Oakbridge Group						
Bulga	OC	58.2	3.9	2.2	3.7	2.1
South Bulga	UG	58.2	2.5	1.4	2.4	1.3
Baal Bone	UG	63.2	2.4	1.4	2.4	1.4
Macquarie Coal Joint Venture						
West Wallsend	UG	80.0	2.7	2.2	2.3	1.9
Westside	OC	80.0	0.7	0.5	0.7	0.5
Teralba	UG	80.0	0.2	0.2	0.3	0.2
Liddell Group						
Liddell	OC	67.5	2.7	1.8	2.4	1.6
Cumnock	UG	84.0	1.4	1.1	1.5	1.2
Mount Owen	OC	100.0	4.4	4.4	4.4	4.4
United[4]	UG	95.0	0.8	0.3	0.8	0.3
Ulan[5]						
Ulan Underground	UG	90.0	3.5	2.8	3.4	2.9
Ulan Open Cut	OC	90.0	2.3	1.8	2.0	1.6
Ravensworth Group[6]						
Narama	OC	50.0	2.4	0.0	2.4	0.0
Ravensworth East	OC	100.0	1.7	0.0	1.7	0.0
Total			**31.5**	**20.2**	**30.3**	**19.5**

Note: Numbers in the above table may not add up due to rounding.

(1) OC = Opencut, UG = Underground.

(2) For the year ended 31 December 2001. See "Presentation of information – Resources and reserves, production and sales" for an explanation of the basis of preparation of production amounts. This includes production of the Teralba mine in 2001, which is currently on care and maintenance. This table does not include production of Cook which is classified as an investment.

(3) For the year ended 31 December 2001. See "Presentation of information – Resources and reserves, production and sales" for an explanation of the basis preparation of sales amounts.

(4) The acquisition was completed by the Enex Group on 31 July 2001. Attributable production and attributable sales do not include production and sales for the period prior to acquisition by the Enex Group when the mine was owned by the Xstrata AG Group.

(5) Ulan was acquired by the Enex Group with effect from 31 January 2001.

(6) The Ravensworth Group was acquired by the Enex Group on 13 March 2002.

Oakbridge Group

Bulga. Bulga is located in the southern part of the Hunter Coalfield, 18 kilometres south of Singleton. Since acquiring Bulga, the Enex Group has implemented a new operating strategy designed to reduce unit operating costs and forecasts an increase in coal production. To achieve these objectives, the Enex Group purchased new equipment which is supported by maintenance contracts. Sufficient reserves have been planned and scheduled to maintain opencut operations for approximately 11 years.

South Bulga. The South Bulga underground mine is located adjacent to the Bulga opencut mine. Production at South Bulga is scheduled to cease in March 2003. Development operations will be scaled down from March 2002. Additional reserves in a new area of Bulga's lease have been identified and the Company expects a new underground mine, Beltana, to commence longwall operations following South Bulga's completion of longwall mining in 2003. See "– Projects and developments – Beltana" below.

Baal Bone. Baal Bone is located in the Western Coalfield on the western edge of the Sydney Basin and is within 20 kilometres of the Wallerawang and Mt Piper power stations, both of which are important strategic customers. The mine is primarily an export mine but also has a coal supply contract to a domestic electricity generator, ending in 2003. Since Baal Bone was acquired by the Enex Group, underground productivity per employee has more than doubled as a result of detailed mine planning, equipment modifications, improved operating standards and higher equipment utilisation. Sufficient reserves have been planned and scheduled to maintain operations for between four and five years. Current exploration and planning is targeting the conversion of remaining resources to reserves, potentially increasing mine life.

Macquarie Coal Joint Venture

West Wallsend. West Wallsend is located in the Newcastle Coalfield, near Lake Macquarie. West Wallsend is the closest of the Group's export coal operations to the Port Waratah Coal Terminal facility and, as a result, attracts the lowest transportation cost for the Group to the port of Newcastle. In 2001, the Enex Group upgraded West Wallsend's coal clearance system. Sufficient reserves have been planned and scheduled to maintain operations for approximately 19 years.

Westside. Westside is located south of West Wallsend. The mining operations are managed under a mining contract. All of its production is sold under contract to domestic power stations. Sufficient reserves have been planned and scheduled to maintain operations for approximately eight to nine years.

Liddell Group

Liddell. Liddell is located approximately 107 kilometres north-west of Newcastle. The mining operations are conducted under contract until March 2003. The mining contractor has increased production in accordance with the current contractor terms. Sufficient reserves have been planned and scheduled to support the production plan for approximately 21 years.

Cumnock

Cumnock is located in the Upper Hunter Valley, approximately 105 kilometres north-west of Newcastle. Underground productivity at Cumnock has increased over the four years to 31 December 2001. The Company expects to re-open the opencut operations in 2003. Sufficient reserves have been planned and scheduled to maintain operations for approximately nine years, and significant resources exist to extend the current operations beyond that, which will require further exploration and mine planning.

Mount Owen

Mount Owen is located in the Upper Hunter Valley, approximately 105 kilometres north-west of Newcastle. The Company believes that Mount Owen is one of the most efficient and productive truck and excavator mines in the world. Sufficient reserves have been planned and scheduled to maintain output of the mine for approximately 19 years. The mining operation is conducted under contract by an independent contractor, under a 15-year contract reviewable every five years.

Cook

Cook is located in Queensland's Bowen Basin. The mine is managed and operated by a third party. Cook is currently producing on a limited basis. The Company considers this mine a long-term strategic investment due to its extensive resource base. Current reviews of the exploration information and preparation of geological models are directed at delineating future mining reserves in excess of those currently Proved.

United

United is located in the Upper Hunter Valley, approximately 30 kilometres west of Singleton. Production at United decreased in 2001 in preparation for the transition from bord and pillar to longwall mining. The Company expects the mine to begin its longwall mining operations in May 2002 and expects performance to improve when compared to 2001. Sufficient reserves have been planned and scheduled to maintain operations for approximately seven years. Additional resources are being evaluated to extend mine planning beyond the currently planned area.

Ulan

Ulan Underground. Ulan is located in the Western Coalfield, approximately 40 kilometres north-east of Mudgee. Unit operating costs have been reduced through reductions in management and support staff. Pre-feasibility studies are currently underway to examine whether a production increase or second longwall is feasible. Sufficient reserves have been planned and scheduled to maintain operations for approximately 19 years.

Ulan opencut. The mining operations at the Ulan opencut are conducted by a contractor under a six-year contract. The currently planned mine life of seven years coincides with the Group's current domestic coal supply contract. Additional opencut resources beyond this period are being evaluated which would increase the mine life. Unit costs have been reduced through a programme of voluntary redundancies and expanding output.

Ravensworth Group

Narama. Narama is located in the Hunter Coalfield, approximately 107 kilometres north-west of Newcastle. The Narama coalmine is a large scale operation which commenced operation in 1992. Coal is mined from the opencut pit and is transported by truck to a receival and crushing facility, then to the Liddell and Bayswater power stations via a series of overland conveyors. Sufficient reserves have been planned and scheduled to maintain operations for approximately 11 years to satisfy existing contracts.

Ravensworth East. Ravensworth East is located in the Upper Hunter Valley, approximately 107 kilometres north-west of Newcastle. Ravensworth East is the former Swamp Creek operation. Production recommenced in 2000 as a truck and shovel operation, targeting the Bayswater and Ravensworth Seams for supply to the local domestic power stations. Sufficient reserves have been planned and scheduled to maintain operations for approximately 16 years.

Projects and developments

Beltana. The Beltana underground mine is located adjacent to the Bulga opencut mine. This operation, which is currently classified as a development, accesses reserves from selected current opencut highwalls utilising underground mining equipment. Longwall production is scheduled to commence in June 2003, following completion of production at South Bulga and an overhaul of the longwall. The Company expects that at full capacity mining costs will be competitive with those of the lowest cost producers in Australia. Ongoing underground mining operations in the Bulga Complex are planned to continue from planned reserves for in excess of 15 years. These operations will extract coal from the other major seams within the current mining lease area.

Bulga Long Term, Glendell, Running Stream, Cardiff Borehole, Mitchells Flat, Togara North, Ravensworth West. The Group has significant tracts of undeveloped resources. Although these resources have not been sufficiently evaluated on an economic basis to be classified as reserves, the Company believes that they have potential value in the future, either in the form of stand-alone development projects or as expansion areas for existing mines. The attributable Measured and Indicated Resources relating to these projects and developments as at 30 November 2001 (which have been extracted without material adjustment from the competent person's report prepared by Minarco contained in Part IX) were as follows: Bulga Long Term – 380 million tonnes; Glendell – 63 million tonnes; Running Stream – 58 million tonnes; Cardiff Borehole – 12 million tonnes; Mitchells Flat – 247 million tonnes; Togara North – 379 million tonnes; Ravensworth West – 80 million tonnes. For further information see section 2.3 of the Minarco competent person's report contained in Part IX.

Sales and marketing of the Australian operations' coal

Marketing managers for each mine in Australia are responsible for marketing total mine production in conjunction, where appropriate, with the Group's joint venture partners. The export coal from Australia (other than that produced at Cumnock) will also be subject to the Market Advisory Agreement between Duiker Marketing AG, Xstrata (Schweiz) AG and Glencore International. See "Relationship with Glencore – Commercial relationship – Coal Business" in Part II. As such, except where stated otherwise, the sales figures in this section refer to the sale of total mine production.

The typical quality of the coals mined by the Group in Australia for the export market vary in ash content from 8% to 16% on an air-dried basis and the Group's domestic coal varies in ash content from 22% to 39% on a gross air-dried basis. The typical gross calorific value of the Group's washed coals is in the range of 6,300 to 7,300 kilocalories per kilogramme on an air-dried basis. These qualities provide a range of coals to meet customers' needs and also provide an opportunity to blend coals to meet the specifications of particular customers.

In Australia, the Group's key marketing focus is to maximise sales of its thermal and semi-soft coking coals into the export market. Sales to the domestic market are pursued when attractive, both through the renewal of existing contracts and the identification of new selling opportunities.

In 2001, approximately 87% of the Australian operations' attributable sales were to the export market. The major market for the Australian operations' production is Asia, particularly Japan. Coal is sold primarily to the Japanese, Korean and Taiwanese power and steel industries, although coal is also occasionally sold into India, Brazil and Europe when prices support such sales. The Group is one of Australia's largest suppliers of semi-soft coking coal to the Japanese steel industry and the second largest supplier of thermal coal to Japan in terms of attributable sales. Of all the Australian operations' coal sales in 2001, both domestic and export, approximately 59% was sold for use in electric power generation, 24% for use in steel mill applications and 17% to general industry (which includes third parties that on-sell to various users).

The Australian operations' coal sales are diversified among most of the major power companies and steel mills in Japan, Korea and Taiwan. In 2001, the Australian operations' six largest thermal coal customers represented approximately 37% of the Australian operations' total exported thermal coal sales while its six largest semi-soft coal customers purchased approximately 80% of the Australian operations' total exported semi-soft coal. Domestic coal sales are predominantly to electricity generators in New South Wales.

The following table sets out the geographical breakdown of sales of the Australian operations' mines in 2001 based on total mine production:

	Sales
Japan	50%
Other	22%
Australia	11%
Taiwan	10%
Korea	7%
Total	**100%**

In 2001, the Australian operations sold approximately 78% of their total export sales volume under annually renewable long-term and term coal supply agreements.

The Company expects to continue to sell a significant portion of its coal under annually renewable and long-term supply agreements, particularly in Asia. However, over the next few years the Company anticipates an increasing proportion of the global thermal coal trade will be conducted in the short-term or spot market. Owing to the Australian operations' current product and market sales mix, and its planned increase in production over the medium-term, the Company believes that it is well positioned to secure more attractive sales opportunities as they emerge.

Transportation of the Australian operations' coal

All coal that the Australian operations export is transported to port by rail. Freightcorp provides the New South Wales mines with all freight services. Freight contracts are negotiated with Freightcorp by producers individually, rather than on an industry basis. Queensland Rail provides freight services to the Cook mine in Queensland.

Coal from Mount Owen, Bulga, South Bulga, West Wallsend, Liddell, Ulan, Cumnock and United is exported through the Port Waratah Coal Terminal, which is the world's largest export coal handling operation. The terminal facility is operated by Port Waratah Coal Services Limited (in which the Group has a 13.4% interest) and is located in the port of Newcastle, approximately 125 kilometres north of Sydney. The annual shiploading capacity is approximately 89 million tonnes per annum. The Group's interest in the Port Waratah Coal Terminal does not give rise to an entitlement to throughput capacity because it is a common user terminal. Coal from Baal Bone is exported through the Port Kembla Coal Terminal, located in the port of Wollongong, New South Wales and is operated by Port Kembla Coal Terminal Ltd (in which the Group has a 17% interest). This gives rise to an entitlement to export through the Port Kembla Coal Terminal. Port Kembla Coal Terminal has an annual shiploading capacity of approximately 15 million tonnes per annum.

For further information regarding the Coal Business's Australian operations see the Minarco competent person's report contained in Part IX.

South African operations

Overview

The Group is South Africa's third largest exporter of thermal coal in terms of attributable sales. In the year ended 31 December 2001, the Duiker Group's attributable production of coal was 17.8 million tonnes and of the Duiker Group's attributable sales of 17.0 million tonnes, approximately 75% was exported. The Company believes that during 2001 the Duiker Group produced approximately 20% of all thermal coal exported from South Africa and supplied approximately 3% of all coal supplied to the South African market. The Group owns and manages nine operating coal mines and has interests in a further five joint venture operating coal mines, two of which the Group manages. The Group also has a 20.91% interest in the Richards Bay Coal Terminal. The Company believes its economic interest in the Richards Bay Coal Terminal provides the South African operations with a strategic advantage due to the associated rights it has to use the coal loading facility, which is for use by shareholders only.

The 11 mines the Group manages in South Africa fall into three operating divisions:

- the Tweefontein Division, consisting of the Waterpan, Boschmans, Witcons and South Witbank mines;
- the iMpunzi Division, consisting of the Phoenix, Tavistock, ATC and ATCOM mines; and
- the Mpumalanga Division, consisting of the Strathrae, Tselentis and Spitzkop mines.

The Group's major holdings are located within two of the major coalfields of South Africa – the Witbank and Ermelo Coalfields. All of the mines that the Group operates as well as the Group's non-managed joint venture mines fall within the Witbank Coalfield with the exception of Tselentis and Spitzkop, which are in the Ermelo Coalfield. Production and planning across all the Group's mines is co-ordinated so as to manage the capacity constraints in exporting coal from South Africa.

The South African operations use more labour-intensive mining techniques and less capital-intensive technology in multi-section mechanised underground operations than the Australian operations because there are less complex mining conditions and the South African operations have access to a more cost effective work force. The Company believes that the Group's South African operations have the potential for improving productivity through the introduction of additional modern mining equipment technology, using mining contractors where appropriate and improving mine operating procedures. As the productivity of its people is a key performance driver in the South African operations, the Duiker Group has introduced employee training programmes to achieve improvements in this area, including programmes aimed at improving team work and communication and identifying operational bottlenecks.

The Group owns the mineral rights for all of its operations other than certain rights held by Ingwe and certain rights relating to the iMpunzi Division, the Klippoortjie reserves at South Witbank Colliery and a minor tract at Spitzkop which it leases or, in the case of Spitzkop, expects to lease, from the holders of the mineral rights in these areas. In addition, the Group owns the surface rights in freehold for most of the mines in the Tweefontein, iMpunzi and Mpumalanga Divisions.

Description of the South African operations' coal assets

The following table sets out certain information about each of the Group's operating South African coal mines, extracted without material adjustment from the Weir International Mining Consultants competent person's report contained in Part IX:

Coal mine	Type of mine[1]	The Group's attributable interest (%)	2001 (Mt)[2] Mine production[2]	Attributable production[2]	Attributable sales[3]
Tweefontein Division					
Waterpan	OC/UG	100	1.1	1.1	1.1
Boschmans	UG	100	2.0	2.0	1.8
Witcons	UG	100	1.0	1.0	1.0
South Witbank	UG	100	0.4	0.4	0.3
iMpunzi Division					
Phoenix	UG	100	0.8	0.8	0.8
Tavistock	UG	100	1.3	1.3	1.2
ATC	UG	50	1.8	0.9	0.9
ATCOM	OC	50	2.3	1.1	1.2
Mpumalanga Division					
Strathrae[4]	UG	100	0.6	0.6	0.6
Tselentis	OC	100	1.2	1.2	1.1
Spitzkop	OC/UG	100	1.4	1.4	1.4
Mines operated by Ingwe					
DTJV[5]	OC/UG	16	25.3	4.0	3.9
Rietspruit	OC/UG	50	3.8	1.9	1.6
Total			**42.9**	**17.8**	**17.0**[6]

Note: Numbers in the above table may not add up due to rounding.

(1) OC = Opencut, UG = Underground.

(2) For the year ended 31 December 2001. See "Presentation of information – Resources and reserves, production and sales" for an explanation of the basis of preparation of production amounts.

(3) For the year ended 31 December 2001. See "Presentation of information – Resources and reserves, production and sales" for an explanation of the basis of preparation of attributable sales.

(4) Operations at the Strathrae mine ceased at the end of February 2002 and the mine is currently on care and maintenance. However, the mine will continue to generate income while unwashed coal is processed and stockpiled coal is sold.

(5) DTJV comprises the Douglas and Middelburg mines.

(6) Includes approximately 52,000 tonnes traded through the Duiker Group's RBCT entitlement.

Tweefontein Division

The Tweefontein Division consists of four wholly-owned mines: Waterpan, Boschmans, Witcons and South Witbank. These mines are all operating in the Witbank Coalfield and are located in the Mpumalanga Province near the town of Ogies, which is approximately 130 kilometres from Johannesburg. The railing distance to the Richards Bay Coal Terminal is approximately 590 kilometres. The Group is planning to develop a fifth colliery within this division, Goedgevonden, which it expects to begin production in 2004.

Waterpan. The Group operates the underground mine and dump reclaim at Waterpan, while the opencut mine is operated by an independent contractor. Sufficient reserves have been planned and scheduled to maintain operations for approximately 16 years and current mine plans anticipate that this operation will be expanded in the future.

Boschmans. Boschmans is the largest underground operation in the Duiker Group. The Company expects the second and third continuous miner sections to be commissioned in 2002 to replace two of the existing four drill and blast sections. Sufficient reserves have been planned and scheduled to maintain operations for in excess of 20 years.

Witcons. Since acquisition of this underground mine by Glencore, relocation of mining equipment within the mine and a revision to the medium-term mine plan have led to an improvement in productivity. The replacement of one of the three drill and blast sections with a continuous miner section in 2003 will allow the recovery of additional pillar reserves in the No. 4 Seam, thereby extending the life of the mine. Sufficient reserves have been planned and scheduled to maintain operations for approximately 11 years.

South Witbank. Historically, South Witbank supplied low-grade coal to both the export and domestic markets. However, due to market weakness it was decommissioned in 1999. The mine was recommissioned in June 2001 and is currently producing coal for the export market. The recommissioning included new underground equipment and infrastructure as well as a new beneficiation plant capable of producing up to 1.8 million tonnes per annum. This mine has the highest underground productivity in the Duiker Group as a result of the implementation of advanced proven technologies in the recommissioning process. Sufficient reserves have been planned and scheduled to maintain operations for approximately 20 years.

iMpunzi Division

The iMpunzi Division consists of two wholly-owned mines – Phoenix and Tavistock – as well as two mines the Group owns in a 50% joint venture with TOTAL Exploration South Africa ("TESA"), known as the TAV/TESA Joint Venture ("TAV/TESA"). The TAV/TESA operations are the Arthur Taylor Colliery ("ATC") and the Arthur Taylor Colliery Opencast Mine ("ATCOM").

The iMpunzi mines are all located in the Mpumalanga Province, south of Witbank and south-east of Ogies, approximately 570 kilometres from the Richards Bay Coal Terminal. The iMpunzi Division is located directly east of, and is contiguous to, the Tweefontein Division in the central portion of the Witbank Coalfield.

Phoenix. This underground mine currently produces coal from the Witbank Coalfield No. 1 Seam. The sized fraction of the beneficiated product is sought after by the ferroalloy industry because of its low phosphorus content and thus earns a premium in the domestic market. The balance of production is exported as thermal coal. When the No. 1 Seam is depleted this mine will extract the No. 2 and 4 Seams producing standard thermal product, largely for the export market. Sufficient reserves have been planned and scheduled to maintain operations for approximately 10 years.

Tavistock. The Tavistock underground bord and pillar operation is one of the Duiker Group's lowest cost producers. Tavistock's continuous miner was relocated from Strathrae and is now producing ROM coal at more than twice the previous rate. Through improved performance management and training, the Company expects this unit to increase its output further. Additional beneficiation plant capacity has been realised in 2001 through the addition of an extra treatment module. Sufficient reserves have been planned and scheduled to maintain operations for approximately 15 years and current mine plans anticipate that this operation will be expanded in 2003.

ATC. The underground bord and pillar ATC mine operates under the TAV/TESA joint venture. This mine has embarked on a programme to increase the productivity of its continuous miners, which the Company expects to enable full production requirements to be met without using the two labour intensive drill and blast sections that were used in the past. Sufficient reserves have been planned and scheduled to maintain operations for approximately 14 years.

ATCOM. The open pit ATCOM mine also operates under the TAV/TESA joint venture. Mining currently takes place in the East Pit. As the reserves in the East Pit are nearing depletion, the Company intends that opencut operations will start to relocate to the North Pit in 2002, with the dragline relocating in 2003. Detailed planning for the move is advanced. Sufficient reserves have been planned and scheduled to maintain operations at the North Pit for approximately 14 years.

Mpumalanga Division

The Mpumalanga Division consists of three wholly-owned operating mines: Strathrae, Tselentis and Spitzkop. These mines are located in the areas of Carolina, Breyten and Ermelo respectively, in the Mpumalanga Province. They are approximately 470 kilometres from the Richards Bay Coal Terminal. Strathrae is located in the Witbank Coalfield, while Tselentis and Spitzkop are located in the north-central portion of the Ermelo Coalfield.

Strathrae. In order to improve the overall profitability of the Duiker Group, operations were stopped at Strathrae at the end of February 2002 and the mine was placed on care and maintenance. The mine will continue to generate income while unwashed coal is processed and stockpiled coal is sold. If a purchaser can be found, the mine will be sold. The underground production equipment has been redeployed at other mines within the Group.

Tselentis. Tselentis is an opencut truck and excavator operation. The Company expects underground operations to commence in 2003 utilising continuous miners. As the production from underground increases, the output from the opencast will be reduced. Sufficient reserves have been planned and scheduled to maintain operations for approximately 20 years.

Spitzkop. This mine has historically produced from open pit and underground operations, the latter consisting of six cut, drill and blast sections and one continuous miner section. The open pit operation will be phased out during 2002 and it is the Company's intention to increase the number of underground continuous miners from one to four and reduce the number of cut, drill and blast sections from six to four. Sufficient reserves have been planned and scheduled to maintain operations for approximately nine years.

Joint venture mines managed by Ingwe

The Rietspruit, Douglas and Middelburg mines are operated by the Duiker Group's joint venture partners.

Rietspruit. Rietspruit is managed by Ingwe. The Group and Ingwe each market their own share of production. Production is scheduled to cease in May 2002, on depletion of current reserves. The Company intends to dispose of equipment that is not required once production ceases but expects to retain some equipment for mine rehabilitation purposes. Sufficient funds for rehabilitation have been allocated.

Douglas. Douglas consists of both underground and open pit operations and is managed by Ingwe under the Douglas/Tavistock Joint Venture ("DTJV"). Since January 2000, the mines have commissioned a truck and shovel open pit operation, a dragline pit, a contractor-operated pit and have redeployed an underground continuous miner fleet. This, combined with a reduction from a three-shift to a two-shift operation, has maintained consistent output. Douglas operates a preparation plant which has recently been upgraded and debottlenecked, resulting in an increase in capacity of approximately 45%. Sufficient reserves have been planned and scheduled to maintain operations for in excess of 20 years.

Middelburg. Middelburg opencut mine is also managed by Ingwe under the DTJV. Middelburg resulted from the merger of two mines in 1994 – the Duvha Opencast, which was a dedicated ESKOM power station supplier, and Middelburg Mine, an export mine, and is now operated as a single multi-product mine utilising five draglines, making it one of the largest dragline operations in the world. In 2001, approximately 62% of production was sold to the ESKOM power station. Sufficient reserves have been planned and scheduled to maintain operations for in excess of 20 years.

Projects and developments

Goedgevonden, Zonnebloem, Paardekop, Elandspruit, Consbrey and Strathrae South. The Group has significant tracts of undeveloped resources. Although these resources have not been sufficiently evaluated on an economic basis to be classified as reserves, the Company believes that they have potential value in the future, either in the form of stand-alone development projects, as expansion areas for existing mines or to trade for property adjacent to existing operations. The Measured and Indicated Resources attributable to these projects and developments as at 31 December 2001 (which have been extracted without material adjustment from the competent person's report prepared by Weir International Mining Consultants contained in Part IX) were as follows: Goedgevonden – approximately 266 million tonnes; Zonnebloem – approximately 104 million tonnes; Paardekop – approximately 444 million tonnes; Elandspruit – approximately 33 million tonnes; Consbrey – approximately 251 million tonnes; Strathrae South – approximately 47 million tonnes; and other – approximately 43 million tonnes. For further information see section 2.3 of the Weir International Mining Consultants competent person's report contained in Part IX.

Sales and marketing of the South African operations' coal

The marketing of the South African operations' coal will be managed through Duiker Marketing AG with the exception of (a) domestic sales which will be managed by Duiker (other than domestic sales from the DTJV, which are managed by Ingwe); and (b) export sales from the TAV/TESA joint venture, which are managed by TESA. Duiker Marketing AG and Xstrata (Schweiz) AG have entered into a Market Advisory Agreement with Glencore International in respect of the South African coal exports that it manages. See "Relationship with Glencore – Commercial relationship – Coal Business" in Part II.

On an air-dried basis, the export coals produced by the South African operations have a relatively low sulphur content and low moisture levels. The ash content of the South African operations high grade export coals is approximately 14% (on an air-dried basis) and have a gross calorific value ranging from 6,400 to 6,700 kilocalories per kilogramme, whereas its low grade export coals have an ash content of approximately 20% (on an air-dried basis) and have a gross calorific value ranging from 5,600 to 6,100 kilocalories per kilogramme. The South African operations' coal produced for domestic customers generally has a higher sulphur and ash content and a comparatively lower calorific value than the South African operations' typical export product.

All sales figures in relation to the South African operations refer to attributable sales. The South African operations' principal marketing strategy is to maximise sales of high margin export coal, using all of its Richards Bay Coal Terminal entitlement. The South African operations sell their incremental tonnage into the domestic market.

Of the South African operations' attributable sales of 17.0 million tonnes in 2001, approximately 75% was exported. The major market for exports was Europe, with the United Kingdom, Spain and the Netherlands being the South African operations' largest European purchasers. Outside of Europe, Israel was the largest purchaser of the South African operations' coal production. Of the thermal coal exported by the South African operations in 2001, over 95% was sold for use in the power industry and the remainder mainly for use in the cement industry. The South African operations' eight largest thermal coal customers represented approximately 62% of its total South African exports in 2001. The Company does not believe the South African operations.are dependent upon any one customer.

The following table sets out the geographical breakdown of attributable sales of the South African operations' mines in 2001:

	Sales
Europe and Mediterranean[1]	69%
South Africa[2]	25%
Other export[3]	6%
Total	**100%**

(1) Approximately 34% of which was sold to Glencore.

(2) Approximately 3% of which was sold to Glencore.

(3) Approximately 1% of which was sold to Glencore.

Of the South African operations' domestic sales of 4.3 million tonnes, approximately 39% was sold to ESKOM, the State-owned electricity utility. The major domestic industrial consumers are the paper, sugar, chemical and metallurgical industries and municipal power stations. The South African operations supplied approximately 14% of the domestic industrial market in 2001 (excluding sales to ESKOM and Sasol used for the production of synthetic fuels).

In 2001, approximately 80% of the South African operations' export sales were under spot contracts, with the remaining sales being under term coal supply agreements of one year or longer. In 2001, approximately 68% of the South African operations' domestic sales were under term contracts with the most significant being with ESKOM for the Duvha Power Station, which runs until 2014 with an option to renew for two further 10-year periods.

Transportation of the South African operations' coal

In 2001, 100% of the coal exported by the South African operations was exported through the Richards Bay Coal Terminal. The Richards Bay Coal Terminal is capable of loading vessels of various sizes and is the only port facility in South Africa with capacity for substantial coal export volumes. Prior to 2001, the Duiker Group exported limited quantities of coal via Durban and Maputo each with a capacity of under 2 million tonnes per annum and the ability to load smaller vessels only. All coal that the South African operations export through the Richards Bay Coal Terminal is transported by COALlink, a division of Spoornet, the State-owned railway operator. In 1995, the shareholders of the Richards Bay Coal Terminal entered into a 10-year agreement with COALlink under which COALlink agreed to provide those companies with transport of their coal exports to the Richards Bay Coal Terminal. COALlink transported a total of approximately 67.6 million tonnes of coal (as measured at port) in 2001. The Company believes that COALlink is one of the most efficient coal rail facilities in the world, in terms of the tariff/tonne/kilometre and performance and reliability.

The Group has a 20.91% interest in the Richards Bay Coal Terminal, which is owned by seven coal producing companies in South Africa including Ingwe (a subsidiary of BHP Billiton) and Anglo American. The Richards Bay Coal Terminal is situated in the deepwater port of Richards Bay, on the north-eastern coastline of South Africa. The Richards Bay Coal Terminal has an annual capacity of 72 million tonnes per annum, although the agreed throughput of capacity for 2002 is 68 million tonnes per annum, of which the South African operations are entitled to approximately 13.9 million tonnes per annum after deducting net entitlement transferred to and from the South African operations' two joint ventures.

A Memorandum of Understanding has been signed by a number of parties wishing to participate in the Richards Bay Coal Terminal Phase V upgrade project, which is planned to increase total throughput capacity to 82 million tonnes per annum. The Group has exercised its rights in the Phase V upgrade, which will increase the Group's entitlement by 2.1 million tonnes per annum. The construction period for this phase is expected to commence in mid-2002 once all agreements have been signed. Commissioning is currently expected towards the end of 2004. Following completion of the Phase V upgrade, it is unlikely that any further expansion of the Richards Bay Coal Terminal will take place.

While the capacity of the Richards Bay Coal Terminal is a constraint on the amount of coal that the South African operations can export, production and planning across all the South African operations' mines is co-ordinated so as to optimise usage of this facility. The lack of alternative sizeable ports in Southern Africa for the export of coal from South Africa, as well as the restricted access to the Richards Bay Coal Terminal, effectively limits potential oversupply in the export market from non-Richards Bay Coal Terminal coal producers.

For further information regarding the Coal Business's South African operations see the Weir International Mining Consultants competent person's report contained in Part IX.

Zinc Business

Summary of the Business

Introduction

The Zinc Business is the Group's second largest business in terms of profit and turnover, accounting for 17% of EBIT, 17% of EBITDA and 20% of turnover in the year ended 31 December 2001 on an unaudited combined constructed illustrative basis. See further "– Zinc Business – Summary of the Business – Financial information" below.

The Group's zinc assets are held through Asturiana. On 3 May 2001, the Xstrata AG Group acquired 95.5% of the issued share capital of Asturiana de Zinc, S.A. pursuant to a public takeover offer. Following the offer, Asturiana made a delisting offer to the remaining public shareholders of Asturiana pursuant to which, and as a result of other market purchases made by the Xstrata AG Group, the Xstrata AG Group increased its shareholding in Asturiana to 98.36%.

Following the delisting offer, Asturiana de Zinc, S.A. was merged into Xstrata Spain, S.L., and the resulting company was renamed Asturiana de Zinc, S.L. Due to the way in which the merger was effected, the Xstrata AG Group's shareholding in Asturiana has been reduced to 93.18%. However, the Directors expect that the Group will be able to purchase shares in Asturiana from minority shareholders and increase the Xstrata AG Group's shareholding in Asturiana to close to 100%.

The Zinc Business's main activities are the production of zinc metal and the mining of zinc bearing ores. Its operating facilities comprise the San Juan de Nieva smelting plant, the Reocín mine, the Hinojedo roasting facility and the Arnao manufacturing plant in Spain.

Reserve base and production

As at 31 December 2001, the Proved Reserves at the Reocín mine were 1.4 million tonnes at a grade of 7.4% zinc and 0.8% lead. Based on current production rates, these reserves will be depleted by June 2003.

For the year ended 31 December 2001, the Zinc Business's total zinc metal production was approximately 390,800 tonnes. See the Pincock, Allen & Holt competent person's report contained in Part IX.

Financial information

The table below provides pro forma unaudited combined constructed illustrative financial information in relation to the Zinc Business for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in further detail in "Presentation of information – Pro forma unaudited combined constructed illustrative financial information".

Zinc	Year ended 31 December 2001 (US$000)	As a percentage of the Group
Turnover	383,317	20%
EBITDA	101,453	17%
EBIT	67,155	17%

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the Zinc Business as if the Acquisitions and acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Cost curve

Cost curves produced by Brook Hunt for 2001 rank the Group's zinc smelting operations in the first quartile of worldwide production of zinc metal. See "Presentation of information – Cost curves".

Industry overview

Background

Around half of all zinc currently consumed is used for the galvanising of steel which is the most cost-effective and environmentally friendly method of protecting steel against corrosion. Galvanised steel represents around 54% of

end-use consumption with other uses being oxides and chemicals (7%), brass (10%), rolled products (7%), die casting (18%) and zinc dust and other (4%). Demand for zinc by the galvanised steel sector has increased by an average of 3.2% per annum over the past ten years and is the main growth area for the zinc industry.

Zinc producers can be categorised into: pure mining companies, which sell zinc concentrate to smelters generally receiving a payment for 85% of the contained zinc at the LME cash price less a treatment charge; smelting and refining companies, which buy zinc concentrate and produce refined zinc and sell the refined metal; and integrated producers, which mine and concentrate zinc ore, smelt and refine zinc concentrate and sell the refined metal.

The gross returns achievable by zinc smelting and refining companies are linked to the difference between the amount they pay for zinc metal contained in concentrate (85% of contained zinc) and also to the level of the treatment charge which is deducted from the price paid for the zinc concentrate and the amount of zinc they are able to recover in the smelting process and subsequently sell. The treatment charge represents a market based fixed charge, largely driven by the supply and demand of zinc concentrate, which is then adjusted to reflect the level of the zinc price.

The zinc mining industry is highly fragmented with the top five producers accounting for only 33% of the total western world zinc mine production. The zinc smelting industry is equally fragmented with the top five smelting companies accounting for approximately 46% of total western world production. This fragmentation could give rise to further consolidation in the zinc industry.

Supply and demand

Most of the producing zinc mines are in North and South America (Canada, Mexico, Peru and the United States), China and Australia. Together these countries provide approximately 70% of world zinc concentrate production. Very large mining operations such as the Century mine in Australia, Teck Cominco's Red Dog mine in Alaska and the Antamina mine in Peru will be increasingly important zinc concentrate suppliers as low zinc prices and ore exhaustion are expected to result in a number of mine closures over the next few years.

Europe has the largest deficit of concentrates followed by Japan and South Korea. In addition, recent significant smelter capacity expansion in China means that China will have to continue to increase imports of zinc concentrate. Variations in the amount of exports from China and the former Soviet Union will remain a key price driver in coming years.

In contrast to the zinc mining industry, refined zinc metal production is more geographically diverse with China being the largest producer followed by Canada, Japan, South Korea, Australia, Spain and the United States. Other large producers are located in Europe, Kazakhstan, Russia, Mexico, Peru and Brazil.

Pricing and costs

Zinc metal is sold to consumers or into a terminal market and is an LME traded metal. The zinc concentrate market is largely a negotiated market with a large proportion of concentrate sold under annual contracts at negotiated treatment charges. The costs of smelting operations are generally equally split between power costs, labour costs and other sundry costs.

Markets and outlook

Global zinc consumption declined by 1.6% to 8.7 million tonnes in 2001. The United States and other western markets suffered the most as a result of significant cutbacks and destocking by manufacturers (especially car manufacturers) due to lower demand. Demand from the construction industry has also fallen in the United States, Europe and Asia. Demand is expected to improve as a result of economic growth and the cessation of destocking by manufacturers.

The outlook for treatment charges will be driven by the impact of mine closures on concentrate supply, changes in smelter capacities and changes in the balance between Chinese mine production and smelter capacity. Realised treatment charges fell significantly in 2001 as a result of weak zinc prices. Negotiated treatment charges also fell in late 2001 due to mine cutbacks and increased smelter capacity and the resultant increase in competition for concentrate. Treatment charges may come under further pressure as announced mine closures take effect and Chinese smelter capacity continues to increase.

Future refined zinc demand will be primarily driven by the use of galvanised steel in the construction and transport sectors which are dependent upon the state of the global economy. As a result, the demand for refined zinc tracks the economic cycle over the longer term, although short-term refined zinc demand can be influenced by destocking or stockpiling by manufacturers of zinc semi-fabricated products and end users such as car manufacturers.

Description of operations

The Reocín mine

The Reocín mine is located in the Spanish region of Cantabria, approximately 30 kilometres southwest of the Port of Santander. A portion of the concentrates from the Reocín mine are transported to the nearby Hinojedo roasting plant where they are processed to produce calcine. The rest is sent directly to the San Juan de Nieva plant. At current mining rates, the resources and reserves at the underground and open pit mines at Reocín will be exhausted in mid-2003. The Group anticipates that the closure costs will be largely offset by the proceeds arising from the disposal of large tracts of land to the regional government for which in principle agreements have been reached, and from the sale of the remaining Reocín assets. Following the closure of the Reocín mine it is anticipated that all concentrates will be purchased from third parties although management will continue to evaluate potential zinc mine acquisition opportunities as a means of providing the Zinc Business with an alternative source of zinc concentrates.

San Juan de Nieva zinc operations

The San Juan de Nieva zinc operations comprise:

- the Hinojedo roasting plant;
- the San Juan de Nieva electrolytic zinc plant; and
- the Arnao manufacturing facility.

The Hinojedo roasting plant. The Hinojedo roasting plant is located approximately six kilometres east of the Reocín mine. Zinc concentrates from the Reocín mine are processed at the roasting plant to produce calcine which is then transported to the San Juan de Nieva electrolytic zinc plant. The major plant facilities at Hinojedo are a flash roaster and a liquid sulphur dioxide plant. The Hinojedo roasting plant also stores lead concentrates received from the Reocín mine prior to their shipment to various lead smelting facilities. After closure of the Reocín mine, concentrates purchased from third parties may be treated at the Hinojedo facility.

The San Juan de Nieva electrolytic zinc plant. The San Juan de Nieva electrolytic zinc plant is located in the Asturias region of Spain near the port of Avilés and is one of the leading plants of its kind in the world in terms of production capacity, costs and efficiencies. Over the four years to 2001, zinc metal production at San Juan de Nieva consistently exceeded the plant's 320,000 tonnes per annum design production capacity. An expansion was commissioned during the third quarter of 2001, bringing the total production capacity of the plant to 460,000 tonnes per annum. The saleable production capacity of the plant is currently approximately 440,000 tonnes per annum as approximately 20,000 tonnes per annum of zinc is re-used in the smelting process. Following this expansion, the plant accounts for approximately 7% of western world, 20% of western European and 90% of Spanish domestic production.

Asturiana achieves an average rate of recovery of approximately 96% of zinc metal from concentrates, compared to the approximately 85% paid according to the generally accepted industry pricing formula for zinc concentrates.

The plant is comprised of five major operating areas: concentrate receiving and storage; roasting and sulphuric acid plant; leaching and purification; electrowinning; and casting. The plant utilises conventional technologies for the production of zinc ingots, zinc alloys, zinc for plating and zinc dust and by-products of sulphuric acid, mercury and germanium oxide.

The Group intends to pursue continued growth in its Zinc Business through the acquisition of additional smelting facilities. The Directors believe there is scope for further consolidation in the zinc industry and will evaluate potential acquisition opportunities as they arise.

The Arnao manufacturing plant. The Arnao manufacturing plant is located approximately four kilometres from the San Juan de Nieva electrolytic zinc plant and produces zinc oxide dust, rolled zinc products, lead anodes and zinc wire. The plant has a small rolling mill where 1,800 kilogramme ingots are first rolled to a thickness of 10 millimetres in a roughing mill and then reduced to a thickness of 0.25 millimetres in a finishing mill and subsequently cut to customers' requirements. The capacity of the rolling facility is some 9,000 tonnes per annum. Arnao also has the ability to produce zinc wire with diameters of as small as two millimetres. The capacity of this facility is approximately 500 tonnes per annum depending on the final diameters of the wire desired.

Sales and marketing

Zinc sales represent more than 90% of the Zinc Business's turnover, the remainder being derived from sales of by-products such as germanium, sulphuric acid, sulphur dioxide and zinc oxide.

Between 50% and 65% of zinc produced by the Zinc Business is exported into other EU countries with the balance sold domestically. Exports are mostly in the form of SHG ingots (approximately 80%) with the remainder being exported in the form of zinc alloys. Export markets by order of importance are Germany, Italy, Portugal and the UK. In the export markets, Asturiana supplies principally the galvanising sector. Glencore was the Zinc Business's largest customer in 2001 accounting for approximately 29% of total zinc sales.

All zinc sales are made in US$ or equivalent based LME benchmark prices. In addition, sales into Europe, including Spain, command a premium over LME prices. Premiums have increased to substantial levels over the past two to three years as a result of Atlantic/Pacific freight costs, anti-dumping duties and reduced imports of metal especially from the Pacific Rim, due to increasing Asian consumption, in particular in China. In 2001, approximately 70% of the Group's zinc metal sales were made under term contracts while approximately 30% of the Group's sales were on a spot basis.

Concentrate suppliers

Following the expansion of the San Juan de Nieva plant's design production capacity, approximately 850,000 tonnes of zinc concentrate per year is required as feedstock to the electrolytic zinc plant for it to operate at current capacity. In 2001, approximately 702,000 tonnes of zinc concentrate was used as feedstock by the electrolytic zinc plant, of which approximately 130,000 tonnes was acquired from the Reocín mine. Currently, concentrates are sourced from the Reocín mine and purchased under contracts with third parties at an average concentrate grade of 54% zinc. Following the closure of the Reocín mine in mid-2003, it is anticipated that all concentrates will be purchased from third parties. San Juan de Nieva typically purchases zinc concentrates from more than 20 third party sources, of which five accounted for approximately 70% of its total concentrate requirements in 2001. San Juan de Nieva has contracted for about 80% of its total zinc concentrate requirements through to 2004.

In 2001, Glencore supplied approximately 31% of zinc concentrates sourced by the Zinc Business from third parties and is the principal supplier of the Zinc Business in addition to being its largest customer. These purchases and sales were all made under contracts on arm's length terms. In addition, in 2001, Teck Cominco's Red Dog mine in Alaska accounted for approximately 20% of the Zinc Business's total zinc concentrate requirements. This percentage is expected to reduce to approximately 16.5% in 2002 due to the increase in the electrolytic zinc plant's feedstock requirements.

For further information regarding the Zinc Business see the Pincock, Allen & Holt competent person's report contained in Part IX.

Ferroalloys Business

The Group's Ferroalloys Business, consisting of the chrome and vanadium operations, is the Group's third largest business in terms of profit and turnover accounting for 4% of EBIT, 13% of EBITDA and 17% of turnover for the year ended 31 December 2001 on an unaudited combined constructed illustrative basis. See "– Chrome operations – Financial information" and "– Vanadium operations – Financial information".

The major consumer for chrome and vanadium alloy is the steel industry. The Group's customer base in this industry is widely spread.

Chrome operations

Introduction

The Group is the world's largest producer of ferrochrome in terms of both attributable production and attributable sales, with capacity attributable to the Group of approximately 1.3 million tonnes per annum, representing approximately 25% of global capacity. The assets consist of three operating chromite mines and 16 ferrochrome furnaces, two of which are in a 50% production joint venture with Samancor Limited, a major South African ferrochrome producer. The chrome operations are also entitled to utilise ore from a fourth operating mine pursuant to a joint venture arrangement. The chrome assets are situated in South Africa.

Resource and reserve base

The table below sets out the Group's chrome resource and reserve base as at 31 December 2001, as extracted without material adjustment from the IMC Mackay & Schnellmann competent person's report contained in Part IX:

	Reserves as at 31 December 2001 ('000 tonnes)			Resources as at 31 December 2001[1] ('000 tonnes)			
	Proved Reserves	Probable Reserves	Total Reserves	Measured Resources	Indicated Resources	Total (Measured and Indicated) Resources	Inferred Resources[2]
Operating mines							
Waterval	–	8,842	8,842	2,118	13,457	15,575	–
Kroondal	4,461	3,931	8,392	8,686	6,371	15,057	–
Kroondal Gemini[3]	–	15,882	15,882	–	24,510	24,510	–
Thorncliffe	3,198	4,941	8,139	8,131	11,904	20,035	50,170
Projects/Non-operating mines							
Wonderkop	–	–	–	–	6,400	6,400	12,000
Townlands	–	9,851	9,851	–	14,814	14,814	111,273
De Grootebоom	–	–	–	344	1,306	1,650	–
Helena	–	–	–	675	122	797	115,231
Total	**7,659**	**43,447**	**51,106**	**19,954**	**78,884**	**98,838**	**288,674**

(1) Resources are quoted as in-situ totals (no allowances for either geological or mining losses) and are inclusive of reserves.

(2) See "Presentation of information – Inferred Resources" for an explanation of the basis of calculation of Inferred Resources.

(3) Pursuant to a joint venture arrangement with Samancor Limited, the chrome operations are entitled to operate the Kroondal Gemini mine and utilise the ore produced from the mine for the furnaces at Wonderkop (two of which are in a production joint venture with Samancor).

Production

The attributable ferrochrome production of the chrome operations for the year ended 31 December 2001 was approximately 860,000 tonnes. See the IMC Mackay & Schnellmann competent person's report contained in Part IX.

Financial information

The table below provides pro forma unaudited combined constructed illustrative financial information in relation to the chrome operations for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in further detail in "Presentation of information – Pro forma unaudited combined constructed illustrative financial information".

Chrome	Year ended 31 December 2001 (US$000)	As a percentage of the Group
Turnover	257,659	14%
EBITDA	64,262	11%
EBIT	59,318	15%

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the chrome operations as if the Acquisitions and the acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Cost curve

Cost curves produced by CRU for 2001 rank the Group's chrome operations, on a weighted average basis, in the first quartile of worldwide production of high carbon ferrochrome. See "Presentation of information – Cost curves".

Industry overview

Background. The most important property of chrome is its ability to form a regenerative oxide film which protects a metal surface against oxidation. Alloys that contain chrome are therefore corrosion and wear resistant.

Chrome and nickel are the two key alloying elements used in bulk quantities for the production of stainless steel. Stainless steel contains a minimum of 10.5% chrome and an average of 18% in the principal grade, 304. Chrome may be added to the stainless steel melt in the form of chrome ore, ferrochrome or as stainless steel scrap. Ferrochrome is an alloy of chrome and iron generally containing between 50% to 65% chrome. More than 85% of the world's ferrochrome production is used in the production of stainless steel. Stainless steel scrap intake by the industry varies depending on the production process used and the availability of scrap. The latter is in turn influenced by the price of nickel.

Supply and demand. Demand for ferrochrome in the western world has grown at an average rate of 6% per annum over the last 20 years (1980-2000). Ferrochrome consumption is determined in large part by the production of stainless steel. Ferrochrome consumption has grown at a rate of over 5% per annum over the 10 years to 2000. South Africa contains approximately 70% of total world chromite reserves and is the leading integrated ferrochrome producer accounting for approximately 60% of the world's ferrochrome production. South Africa is also the most competitive ferrochrome producer due to the availability of low cost chrome ore, low power costs and the recent depreciation of the Rand against the US dollar. Kazakhstan is the other major ferrochrome producer with approximately 14% of the world's ferrochrome production.

While the ferrochrome industry is highly concentrated, the market suffers from low barriers to entry which from time to time have contributed to excess capacity. Due to a recent oversupply of ferrochrome and the resultant reduction in the price of ferrochrome, most producers have cut back production and, in some cases, closed down capacity. By the end of 2001, these cutbacks in production and reductions in capacity resulted in approximately one million tonnes per annum of industry capacity being idled and an equivalent amount currently remains idled.

From 1990 to 2000, growth of stainless steel consumption outperformed the growth in certain economic indicators such as gross domestic product (GDP) and industrial production. Stainless steel's intrinsic properties of heat and corrosion resistance, aesthetic appeal, and workability have resulted in increased use in transport, construction, catering and household products and process industries.

Approximately 60% of the total input of chrome units in the stainless steel industry is provided by ferrochrome with the remainder from stainless steel scrap and chrome ore. Stainless steel scrap intake variations depend in large part on the state of nickel prices. High nickel prices make it more cost effective to recover the nickel units (and chrome units) from stainless steel scrap.

Pricing and costs. The ferrochrome market is largely a negotiated market with contracts based on price and volume entered into on a quarterly basis. Chrome ore, electricity and reductants are the major cost components for producing ferrochrome. South African producers have an advantage due to the recent depreciation of the Rand, as a large percentage of the costs are incurred in Rand.

Markets and outlook. Western world consumption of stainless steel is estimated to have fallen by approximately 4% in 2001 with consumption in the United States falling by approximately 13%. This directly affected demand for

high carbon ferrochrome with the result that the industry stocks that had built up due to the excess supply experienced in the year 2000 were not reduced in 2001 as quickly as had been anticipated. Although the consumption of ferrochrome declined in 2001, cutbacks to production led to a reduction in industry stocks. Prices, nevertheless, fell throughout the year.

The short-term outlook for the market will be determined by the timing of a recovery in economic activity and stainless steel production and will also depend upon the level of ferrochrome supply to the market. In the long-term, ferrochrome consumption is expected to grow at a similar rate to stainless steel production where world-wide output growth is expected to be approximately 5% per annum between 2000 and 2010, driven in part by expectations of a large volume of melt-shop capacity being constructed over the next 10 years. Growth in ferrochrome demand may vary from growth in the stainless steel market depending on nickel prices and the resulting use of stainless steel scrap.

Description of the chrome operations

The Group controls and operates a combined attributable capacity of approximately 1.3 million tonnes of ferrochrome per annum. The Group is currently the world's largest (in terms of both attributable production and attributable sales) and among the lowest cost producers of ferrochrome. The Group believes it is well placed to maintain and grow its ability to offer a wide range of products and to produce large volumes at low cost. The Group will pursue continued growth in its chrome operations whilst at the same time seeking to maintain its position as one of the lowest cost producers of ferrochrome in the world. In addition, the Directors will continue to evaluate both the potential for diversifying the chrome operations' ferrochrome product range and potential acquisition opportunities as a means of providing the chrome operations with a strategic source of essential raw materials and reductants.

All of the Group's operating chrome mines are shallow underground mines accessed by decline shafts. Mining is carried out using a bord and pillar method and is currently conducted at depths ranging from 50 to 250 metres below surface. All development is on reef, thereby reducing waste dilution. In addition to sourcing ore from its own mines, the chrome operations purchase and process chrome-rich tailings from nearby platinum producers, where chrome-rich fines (usually referred to as UG2) are discarded as a waste product. The Group sells approximately 6% of its chrome ore and converts the rest into ferrochrome. The Group's metallurgical plants are all situated close to the Group's chrome mines, thereby reducing rail and road transport costs.

Production is derived from 16 furnaces (two of which are in a 50% production joint venture with Samancor Limited) at three metallurgical facilities. The last eight furnaces were designed, constructed and commissioned by the Xstrata AG Group which has helped to reduce capital costs. By designing and constructing its own furnaces the Xstrata AG Group has been able to further increase the efficiency and reliability of its furnaces, with annual furnace availability figures in excess of 98.5% being maintained for these eight furnaces. Thirteen of the Group's furnaces have an open top structure and large off-gas handling facilities which allow these furnaces to utilise lower quality ore and reductants. Over the 10 years to 2000, the Group increased annual attributable production of ferrochrome from approximately 120,000 tonnes to a peak in the year ended 31 December 2000 of 1.14 million tonnes. Attributable production fell to approximately 861,000 tonnes for the year ended 31 December 2001 due to the Xstrata AG Group suspending production at four of its furnaces (in addition to the two idled in 2000) in light of the oversupply of ferrochrome in 2001. One of these idled furnaces is currently being used to produce platinum bearing matte under an arrangement concluded with Anglo American Platinum. Production at any of the chrome operations' furnaces may be suspended and idled furnaces brought back on-line as and when market conditions require.

In June 2000, the Xstrata AG Group entered into a 50% production joint venture with Samancor Limited. The joint venture comprises two new furnaces at the Wonderkop facility near Rustenburg with an aggregate capacity of 180,000 tonnes per annum. These two furnaces were commissioned in the second quarter of 2001. Pursuant to these joint venture arrangements, the chrome operations are also entitled to operate the Kroondal Gemini mine and utilise the ore produced from the mine for the furnaces at Wonderkop (including the two joint venture furnaces). In addition, 30,000 tonnes of annual production from the Lydenburg furnaces is attributable to Mitsui & Co. Ltd.

At current production levels and under current mining plans, the Group expects its resource base to last for in excess of 20 years. The Group's agglomeration technology makes chrome-bearing tailings from platinum mines a competitive source of chrome units in the ferrochrome production process when compared to traditional ore feed costs. Approximately 25% of the current ore feed balance of the furnaces is sourced from chrome-bearing tailings from platinum mines. The remainder is currently sourced from the chrome operations' chromite mines, however, this ore feed balance can be varied. This gives the chrome operations the ability, where it is cost-

effective to do so, to change the proportions of chrome ore sourced from the chrome operations' chromite mines and chrome bearing tailings sourced from platinum mines.

In 2001, the chrome operations' attributable sales of ferrochrome were approximately 837,000 tonnes of which approximately 50% was sold into Europe with the Pacific Rim being the next most important market. Although exports to North America in 2001 were comparatively small, North America has, historically, been an important market to the Xstrata AG Group and the Company expects it to improve again as economic conditions in that region improve.

The marketing of the Group's ferrochrome production (other than Samancor Limited's attributable share of the 50% production joint venture and certain tonnage sold into Asia) is supported by Glencore under agency and distribution agreements. See "Relationship with Glencore – Commercial relationship – Ferroalloys Business – Chrome operations" in Part II.

For further information regarding the Ferroalloys Business's chrome operations see the IMC Mackay & Schnellmann competent person's report contained in Part IX.

Vanadium operations

Introduction

The Group's vanadium operations consist of three integrated mining and vanadium pentoxide recovery plants, two situated in South Africa and one in Australia. In addition, the Xstrata AG Group has recently commissioned a ferrovanadium conversion facility at the Rhovan plant in South Africa. Combined capacity for the Group's three operations is approximately 46 million pounds of vanadium pentoxide equivalent per annum, which the Company believes represents approximately 18% of estimated global capacity.

Resource and reserve base

The table below outlines the Group's vanadium resource and reserve base (broken down between Australia and South Africa) as at 31 December 2001, as extracted without material adjustment and combined from the IMC Mackay & Schnellmann and BFP Consultants Pty Ltd competent persons' reports contained in Part IX:

	Reserves as at 31 December 2001[1]						Resources as at 31 December 2001[2]		
	Proved Reserves		Probable Reserves		Marketable Reserves		Measured and Indicated Resources		Inferred Resources[4]
	Mt	V_2O_5 (%)[3]	Mt	V_2O_5 (%)[3]	Mt	V_2O_5 (%)[3]	Mt	V_2O_5 (%)[3]	Mt
Australia	0	0	0	0	0	0	106.3	0.47	0
South Africa	14.1	0.69	23.1	0.58	37.2	0.62	73.0	0.70	100.0
Total Vanadium operations	**14.1**	**0.69**	**23.1**	**0.58**	**37.2**	**0.62**	**179.3**	**0.56**	**100.0**

(1) See "Presentation of information – Ore reserve and mineral resource reporting – basis of preparation" for an explanation of the basis of preparation of the reserve amounts and "Definitions and glossary of technical terms – Glossary of technical terms" in Part X for a definition of the relevant reserve terms.

(2) Reserves are a subset of resources and are included in resource estimates. See "Presentation of information – Ore reserve and mineral resource reporting – basis of preparation" for an explanation of the basis of preparation of the resource amounts and "Definitions and glossary of technical terms – Glossary of technical terms" in Part X for a definition of the relevant resource terms.

(3) In situ grade on a weighted average basis.

(4) See "Presentation of information – Inferred Resources" for an explanation of the basis of calculation of inferred resources.

Production

The table below provides information on the Group's vanadium operations' production (broken down between Australia and South Africa) for the year ended 31 December 2001, as extracted without material adjustment and combined from the IMC Mackay & Schnellmann and BFP Consultants Pty Ltd competent persons' reports contained in Part IX:

Production[1]	Year ended 31 December 2001 (in Mlb in V_2O_5 equivalent)
Australia	10.5
South Africa	28.4
Total production	**38.9**

(1) Production for the year ended 31 December 2001. See "Presentation of Information – Resources and reserves, production and sales" for an explanation of the basis of preparation of production amounts.

Financial information

The table below provides pro forma unaudited combined constructed illustrative financial information in relation to the vanadium operations for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in further detail in "Presentation of information – Pro forma unaudited combined constructed illustrative financial information".

Vanadium	Year ended 31 December 2001 (US$000)	As a percentage of the Group
Turnover	63,498	3%
EBITDA	9,234	2%
EBIT	(42,360)	(11)%

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the vanadium operations as if the Acquisitions and the acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Industry overview

Background. The main application of vanadium is an additive in the production of carbon steels and high-strength, low alloy steels. Under certain conditions, the presence of vanadium increases the hardness and toughness of steel. Approximately 87% of vanadium production is added to steel in the form of an alloy, ferrovanadium, and therefore consumption is tied to growth in steel production. Over the past 20 years, steel demand has grown at 0.5% per annum while vanadium demand has grown at approximately 2% per annum over the same period.

Historically, most vanadium producers have produced vanadium pentoxide, which is sold to converters who produce ferrovanadium to sell to the steel industry. Increasingly, however, vanadium pentoxide producers (including the Group) are becoming ferrovanadium producers themselves. This is due to the cost savings that can be achieved in transporting converted ferrovanadium rather than vanadium pentoxide. Approximately 30% of the world's vanadium is produced as a primary product directly from vanadium bearing ores with the balance being produced as a by- or co-product of the iron and steel and oil industries.

Supply and demand. Approximately half the world's vanadium ore reserves are located in South Africa. The high vanadium content of, and easy access to, the ore, together with competitive energy costs and the recent depreciation of the Rand against the US dollar, gives South African producers a competitive advantage. Savings in the cost of transporting vanadium pentoxide and adding value at source is likely to lead to vanadium pentoxide producers moving to become ferrovanadium producers.

Vanadium consumption will continue to be driven by steel production and consumption as well as by its intensity of use in steel, which is highest in the United States and Europe and lowest in Asia. An increase in the intensity of vanadium use in Asian steel production represents a growth opportunity for vanadium demand.

Pricing and costs. The vanadium market is largely a negotiated market with contracts based on price and volume entered into for varying periods. Mining costs and reagents are major cost components for producing vanadium.

Markets and outlook. Since the beginning of 1999, the vanadium industry has been characterised by excess supply and this is expected to continue to impact the market significantly. Prices are expected to remain depressed over the next few years and may drop below current levels. Niobium, which can in some circumstances replace vanadium, poses a possible threat to vanadium demand, and though it is currently much more expensive than vanadium it has a relatively constant selling price compared with the volatility of vanadium prices. The use of vanadium redox batteries (VRB) and lithium metal polymer (LMP) batteries may result in an increase in demand for vanadium in the future.

Description of the vanadium operations

The Group's vanadium operations comprise the mining of vanadium ore, the production of vanadium pentoxide and the conversion of vanadium pentoxide to ferrovanadium.

The Company believes that in 2001, the Xstrata AG Group achieved a world market share of approximately 22% with approximately 39 million pounds of vanadium pentoxide production, a proportion of which was converted into

ferrovanadium. In 2001, the Xstrata AG Group produced approximately 13.5 million pounds of ferrovanadium. The interests of the Group in vanadium consist of three wholly-owned operations: the Vantech and the Rhovan operations, both located in South Africa, and the Windimurra operation in Australia. All three operations are integrated vanadium producers and the mining at the Group's three operating mines is open cast. Processing plants are located adjacent to the respective mines, resulting in low ore handling costs. At current production levels, reserves at Vantech's mine at Kennedy's Vale will be depleted by March 2003 but replacement reserves exist at the Steelpoortdrift ore deposit. At current production levels the Group's reserve and resource base in South Africa should support the operations for at least another 30 years. With Windimurra operating at full capacity, the LOM is in excess of 20 years. Due principally to the oversupply of vanadium pentoxide in 2000 and 2001 and the consequent depression in vanadium pentoxide prices, at the end of 2001 the Windimurra operation took a number of steps to reduce costs and reduced production of vanadium pentoxide from 20 tonnes per day to 15 tonnes per day. Actual production levels may be further reduced should there be no significant market improvement.

Since 1997, the Xstrata AG Group has benefited from an off-take agreement with Glencore under which the vanadium operations sell a fixed quantity of their South African vanadium production (in the form of vanadium pentoxide) to Glencore at a guaranteed minimum sales price. In order to allow the vanadium operations the flexibility to reduce production while the markets were over-supplied, in January 2000, Xstrata AG and Glencore agreed to spread the vanadium operations' anticipated South African production of 28 million pounds of vanadium pentoxide for the year 2000 over a three-year period. As a result of this agreement, 14 million pounds of the vanadium operations' vanadium pentoxide was sold in 2000, seven million pounds of the vanadium operations' vanadium pentoxide was sold in 2001 and seven million pounds of the vanadium operations' vanadium pentoxide will be sold in 2002 to Glencore at, in each case, a guaranteed minimum price. Following the termination of this off-take agreement, the Company expects to convert a higher proportion of its vanadium pentoxide to ferrovanadium. See "Relationship with Glencore – Commercial relationship – Ferroalloys Business – Vanadium operations" in Part II.

On 26 November 2001, the Ferroalloys Association and the Vanadium Association in the US filed an anti-dumping application against ferrovanadium producers in South Africa and China, including the Xstrata AG Group. The United States International Trade Commission ("ITC") and the United States Department of Commerce ("DoC") have commenced an investigation in respect of this application and are expected to make a final determination on the issue at the end of 2002 or early in 2003. As a result of this investigation, the Group may, in respect of each future sale of the Group's South African produced ferrovanadium into the United States, be required to pay a duty based on a percentage of the value of such sales (referred to as the "dumping margin"). The dumping margin requested by the petitioners is 116%. On 10 January 2002, in its preliminary determination, the ITC found that there is a reasonable indication that the industry in the United States is materially injured by reason of imports of ferrovanadium from China and South Africa. The ITC is yet to make a final determination. The DoC has yet to make a preliminary or final determination regarding the anti-dumping application or the dumping margin. The Group is contesting the imposition of any potential dumping margin.

The Department of Minerals and Energy in South Africa is currently conducting an enquiry into health and safety at the Vantech operation and the Group is co-operating with this enquiry. Hearings were held at the end of 2001 and recommenced in 2002. Final submissions have been made to the presiding officer who is expected to give his final report within a month.

All of the vanadium pentoxide and ferrovanadium produced by the vanadium operations is marketed or distributed by Glencore under agency and distribution agreements. See "Relationship with Glencore – Commercial relationship – Ferroalloys Business – Vanadium operations" in Part II.

In 2001, approximately 48% of the vanadium operations' sales were represented by sales of ferrovanadium and approximately 52% were represented by sales of vanadium pentoxide. Approximately 44% of 2001 sales of vanadium pentoxide were to Glencore pursuant to the off-take agreement.

In 2001, approximately 37% of the vanadium operations' sales of ferrovanadium were into Europe and approximately 15% and 19% were into the United States and Japan, respectively.

The Directors will continue to assess the feasibility of a number of potential projects aimed at enhancing the cost effectiveness of the vanadium operations to ensure that they are well positioned when market conditions improve. In addition, the Directors will continue to evaluate both the feasibility of producing vanadium from sources other than vanadium bearing ores and the potential for diversifying the vanadium operations' product range.

For further information regarding the Ferroalloys Business's vanadium operations see the IMC Mackay & Schnellmann and the BFP Consultants Pty Ltd competent persons' reports contained in Part IX.

Additional activities

The Group's additional activities comprise the magnesium operation, consisting of a magnesium re-cycling facility in North America and the forestry operation, consisting of a *eucalyptus globulus* plantation in Chile.

Magnesium operation

Financial information

The table below provides pro forma unaudited combined constructed illustrative financial information in relation to the magnesium operation for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the pro forma unaudited combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in further detail in "Presentation of information – Pro forma unaudited combined constructed illustrative financial information".

Magnesium	Year ended 31 December 2001 (US$000)	As a percentage of the Group
Turnover	25	–
EBITDA	(4,096)	(1)%
EBIT	(5,040)	(1)%

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the magnesium operation as if the Acquisitions and the acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Industry overview

Magnesium's key advantages are its lightness and its ability to be cast as thin walled components. It is approximately one-third lighter than aluminium and on a strength-to-weight ratio, magnesium's specific yield strength is 50% greater than aluminium. As such, magnesium is increasingly used in die-casting applications for the automotive industry.

Indications are that there was an increase in the intensity of use of magnesium in the US automotive industry in 2001 which was partly offset by a decline in car sales. The outlook for 2002 is that intensity of use of magnesium in the automotive industry will continue to increase due to new magnesium applications being introduced on vehicles, even if vehicle production remains flat.

Description of the magnesium operation

In 2001 the Group constructed a magnesium re-cycling facility in Indiana, United States, with an initial capacity of 25,000 tonnes per annum. Whilst the facility is owned and operated by Xstrata Magnesium Corporation, a wholly-owned subsidiary of the Company, the Xstrata AG Group has entered into a royalty arrangement with the previous technology owner pursuant to which it will pay a royalty fee of up to 25% of the operation's EBIT. This plant will re-cycle scrap generated by the US die-casting industry into high-purity magnesium alloys.

The facility was constructed on schedule and within budget. The facility has a modular construction and consists of two independent lines with a capacity of 12,500 tonnes per annum each. The first line has been commissioned and has produced saleable ingots. Production levels to date have been inconsistent due to minor equipment problems and the failure of furnace linings. These repairs are now complete and management is confident increased production levels will be achieved each week until full production is achieved later in 2002. The second line will be commissioned as market conditions allow.

The site on which the re-cycling facility has been constructed has ample space for expansion, which can be achieved at low capital cost. The Company believes that the market will require additional re-cycling capacity in early 2004.

Forestry operation

Financial information

The table below provides pro forma unaudited combined constructed illustrative financial information in relation to the forestry operation for the year ended 31 December 2001. The information, which has been extracted without material adjustment from the unaudited pro forma combined constructed financial information set out in Part VII, has been prepared using information extracted from the Accountants' Reports set out in Part VI and has been prepared on the basis set out in the footnote to the table and explained in further detail in "Presentation of information – Unaudited combined constructed illustrative financial information".

Forestry	Year ended 31 December 2001 (US$000)	As a percentage of the Group
Turnover	25,787	2%
EBITDA	792	–
EBIT	561	–

Basis of preparation: The above table is for illustrative purposes only and is not intended to give a true picture of financial information relating to the Group. This information has been prepared to illustrate the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of the forestry operation as if the Acquisitions and the acquisitions undertaken by the Xstrata AG Group and the Enex Group in that year had occurred on 1 January 2001 and includes the earnings before interest and taxation, earnings before interest, taxation, depreciation and amortisation and turnover of Oakbridge and Asturiana from 1 January 2001 to their respective dates of acquisition together with an adjustment to reflect the amortisation of goodwill on the acquisition of Asturiana.

Description of the forestry operation

The Group's forestry operation comprises a *eucalyptus globulus* plantation north of the Puerto Montt area in Chile, owned by a wholly-owned subsidiary, FLL.

As at 31 December 2001, 11,398 hectares had been planted with *eucalyptus globulus*. In 2002, it is planned that a further 826 hectares of *eucalyptus globulus* be planted taking the total to 12,224 hectares. FLL expects to harvest 36,400 bone dry tonnes equivalent in 2002, gradually increasing to 89,000 bone dry tonnes equivalent in the year 2005. The forestry operation also comprised a trading company, FDS, which was sold in August 2001. FLL's previous management has entered into an agreement to manage FLL's business and FDS has entered into an agreement to purchase all the production of FLL and sell it as logs in the Chilean domestic market or chip it for export sales, principally to Japan.

The acquisition of the Coal Assets and the Merger

The acquisition of the Coal Assets

Under the terms of the Acquisition Agreement, the Purchasers agreed to purchase the Coal Assets for cash and Ordinary Shares with an aggregate value of US$2,067,910,000 (which includes an agreed amount relating to working capital of US$73,000,000), in addition to which the Company has agreed to assume net indebtedness of the Enex and Duiker Groups and procure the repayment of shareholder loans to Glencore International, resulting in a total value of US$2,573,000,000.

The purchase price comprises:

(a) a compensation payment of US$995,452,000 for the shares of Glencore Overseas AG (of which Enex is a wholly-owned subsidiary), to be satisfied by the Company by the allotment to Glencore International of such number of Ordinary Shares at the Offer Price as will result in Glencore International owning (together with the Ordinary Shares received by it in the Merger and whether or not the Manager's Option is exercised) 40% of the issued Ordinary Shares, and as to the balance in cash;

(b) US$150,000,000 in cash for the shares of Duiker Marketing AG, to be paid by Xstrata (Schweiz) AG to Glencore International; and

(c) US$922,458,000 in cash for the shares of Duiker, to be paid by the Company and Xstrata South Africa to the Duiker Mining Shareholders.

The cash element of the purchase price will be satisfied in part from the proceeds of the Global Offer and as to the balance from the Syndicated Loan Facility.

Completion of the acquisition of the Coal Assets is conditional upon:

- the Merger becoming effective in accordance with Swiss law. The Merger will become effective simultaneously with Completion;
- the Company or Xstrata South Africa, as the case may be, having received, in terms satisfactory to it, confirmations and/or approvals from the requisite regulatory authorities under the Foreign Acquisitions and Takeovers Act, 1975 (Australia), the South African Competition Act No. 89 of 1998 and the South African Currency and Exchanges Act No. 9 of 1933. These approvals and confirmations have been obtained;
- Admission, which will occur simultaneously with Completion; and
- the delivery to Glencore International of written consents, in terms satisfactory to the Company, from relevant third parties.

Xstrata AG has unconditionally and irrevocably agreed to guarantee the obligations of Xstrata (Schweiz) AG and Xstrata South Africa and Glencore International has unconditionally and irrevocably agreed to guarantee the obligations of the Duiker Mining Shareholders, under the terms of the Acquisition Agreement.

The effective date of the Acquisitions will be 1 January 2002. Under the terms of the Acquisition Agreement, Completion is scheduled to occur on 25 March 2002, or such later date as may be agreed by Glencore International and the Company.

See "Additional information – Agreements relating to the Acquisitions and the Merger – The Acquisition Agreement" in paragraph 10 of Part VIII.

Joint venture consents

Several of the joint venture agreements to which members of the Enex Group are a party contain provisions that give the joint venture partners certain rights in the event of a change of control of the Enex Group ("Change of Control Rights"). As the Acquisitions will constitute a change of control for the purposes of these agreements, the Enex Group has requested consent from each of the relevant joint venture partners to the change of control and is seeking confirmation that they will not exercise any of their resulting Change of Control Rights. A number of the Enex Group's joint venture partners have provided their consent and have also confirmed that they will not exercise any of their Change of Control Rights. The Enex Group is continuing to seek the consents and confirmations from the other joint venture partners.

The Change of Control Rights in certain shareholder and joint venture agreements provide the shareholders or joint venture partners with the right to acquire all of the Enex Group's shareholding or joint venture interests at fair or market value. The shareholders in Oakbridge and the joint venture partner in the Bulga joint venture, which

the Directors consider to be the only material consents and confirmations that on 18 March 2002 (being the latest practicable date prior to the publication of this document) remain outstanding, have indicated that they will reserve their rights and may not prior to the Acquisitions grant their consent or waive their rights to acquire the Enex Group's shareholdings in Oakbridge or Oakbridge's interest in the Bulga joint venture.

In the year ended 31 December 2001, the Group's combined attributable sales from the Oakbridge Group mines (which includes the Bulga joint venture mines) amounted to approximately 4.8 million tonnes or approximately 12.9% of the Enex and Duiker Groups' combined attributable sales for that year. Accordingly, the acquisition of the Enex Group's entire shareholding in Oakbridge or of Oakbridge's entire interest in the Bulga joint venture by the Oakbridge shareholders or Bulga joint venture partner pursuant to their rights could adversely affect the turnover of the Group. The Directors do not, however, believe that the shareholders in Oakbridge or the joint venture partner in the Bulga joint venture will seek to acquire all or a significant portion of the Enex Group's shareholdings in Oakbridge or of Oakbridge's entire interest in the Bulga joint venture.

Under the terms of the Acquisition Agreement, the completion of the Acquisitions is conditional upon the delivery to Glencore International of written consents from various of the Enex Group's joint venture partners. However, under the terms of the Acquisition Agreement the Company is entitled to waive this condition. The Company intends to waive any unfulfilled conditions precedent concerning joint venture consents immediately prior to Completion.

The Merger

Prior to completion of the Acquisitions and the Merger, Xstrata AG will transfer substantially all of its assets and liabilities to its wholly-owned Swiss subsidiary, Xstrata (Schweiz) AG, in consideration for the issue of shares by Xstrata (Schweiz) AG to Xstrata AG. As a result, Xstrata AG will become the holding company of Xstrata (Schweiz) AG, which will be the holding company of all the members of the Xstrata AG Group.

Pursuant to the Merger the entire undertaking of Xstrata AG, including all of its assets, will be transferred to the Company in consideration for which the Company will issue shares to the shareholders of Xstrata AG in proportion to their respective holdings of Xstrata AG Shares, on the basis of 10 Ordinary Shares for each Xstrata AG Share. In addition, the Company will assume all of Xstrata AG's liabilities.

Following the transfer by Xstrata AG to Xstrata (Schweiz) AG referred to above, the assets and liabilities of Xstrata AG being transferred pursuant to the Merger will substantially consist of its (increased) shareholding in Xstrata (Schweiz) AG (as an asset) and, for a term of up to two years, the contingent (joint and several) liability with Xstrata (Schweiz) AG in respect of the liabilities transferred to Xstrata (Schweiz) AG as described above.

The Merger will be effected as follows:

- the Company and Xstrata AG entered into the Merger Agreement dated as of 20 February 2002. See "Additional information – Agreements relating to the Acquisitions and the Merger – The Merger Agreement" in paragraph 10 of Part VIII;
- a resolution approving the Merger was submitted to, and approved by, the shareholders of Xstrata AG at a meeting held on 19 March 2002; and
- Xstrata AG will submit the requisite documentation to the Commercial Register of the Canton of Zug, Switzerland, for registration of the Merger.

The Merger will become effective upon entry into the Commercial Register, which will take place simultaneously with Completion. Upon the completion of the Acquisitions and the Merger, the Company will be the ultimate holding company of the Group.

Xstrata AG has informed its creditors of the Merger by publishing a notice three times in the Swiss Commercial Gazette (on 22, 25 and 26 February 2002). The deadline for the creditors to request payment of or posting security in respect of their claims, if any, was 19 March 2002. Upon completion of the Merger (entry of the Merger in the diary of the Commercial Register) Xstrata AG will be dissolved.

See "Additional information – Agreements relating to the Acquisitions and the Merger – The Merger Agreement" in paragraph 10 of Part VIII.

Regulatory and environmental matters

In common with other diversified natural resources and mineral processing companies, the Group's operations generate hazardous and non-hazardous waste, effluent and emissions into the atmosphere. There are many national (including certain provisions of the South African Constitution), regional and local environmental laws

and regulations which apply to the Group's operations, the scope of which varies according to the jurisdiction concerned. Examples include those relating to waste and waste water treatment, disposal of waste, air emissions or discharges. If any of the Group's operations fail to comply with the relevant laws and regulations, the relevant authorities could require additional equipment to be installed at substantial cost or that the whole or part of the operation be closed down or scaled back. In addition, if the Group is found to have committed a breach of the relevant law or regulation, it may be liable to pay a fine to the authority or, in some cases, compensation to individuals affected by the breach.

Each of the Group's businesses are subject to various laws and regulations relating to their ability to carry out operations, as well as environmental and health and safety issues. The requirements of these laws vary from operation to operation and are also dependent on the jurisdiction in which they operate. The Board, as a matter of policy, requires each of the Group's businesses and operations, as a minimum, to comply with all relevant laws and regulations in the jurisdiction in which it operates. Compliance with relevant environmental laws is the responsibility of respective managers at the operating companies who are directly responsible to the Group's senior management. The Company believes that each of the Group's businesses and operations are substantially in compliance with all material applicable environmental laws and regulations.

In most jurisdictions, businesses are required to rehabilitate site operations which have been closed down. In South Africa, section 12 of the South African Minerals Act furthermore imposes liability on the mining operator for some time after the relevant mining operations have ceased. Accordingly, the Group, to the extent it has not already done so, will have to make provision for the costs involved in closure and other rehabilitation of any of its site operations in the future. This may involve substantial costs. In the event that pollution of surrounding land and waters occurs, or has already occurred, the Group may be required to remediate pollution and incur substantial costs. In particular, the Group's operations are generally required either to lodge security bonds or make ongoing cash contributions for the purpose of rehabilitation at the end of a mine's life. The Group has an established environmental audit programme at each of its mines and will continue to review its compliance with environmental requirements, including its rehabilitation requirements.

The Group's operations are members of various forums which aim to develop, through the use of best available technologies, water management practices to ensure that the water used by the Group's operation will, when re-introduced into the water system, meet end user requirements.

The Group's operations require various environmental permits covering, amongst other things, water use and discharges, stream diversions and solid waste disposal. The Group has applied for the necessary permits and in doing so has complied with all the requisite statutory obligations required to make application for the permits. Not all permits have, however, been issued due to administrative delay. The Company does not anticipate that any environmental issues or liabilities will be material to the Group's operations. Further information on the licensing and permits of the Group's businesses can be found in Part IX.

New legislation or regulations may be adopted in the future that may materially adversely affect the Group's mining operations, its cost structure or its customers' ability to use the Group's products, particularly coal. New legislation or regulations, or different or more stringent interpretation or enforcement of existing laws and regulations, may also require the Group or its customers to change operations significantly or incur increased costs. It is possible that environmental laws and regulations in certain countries in which the Group operates will, in the future, become more stringent with the result that the amount and timing of future expenditure required to enable the Group to remain in compliance with such laws and regulations could increase substantially from their current levels.

In December 1997, in Kyoto, Japan, the signatories to the United Nations Conventions on Climate Change established a binding set of emission targets for developed nations. These restrictions, known as the Kyoto Protocol, propose emission targets to reduce greenhouse gas emissions that could adversely affect the price of, and demand for, coal. Recently, the parties to the Kyoto Protocol, including Japan, agreed that, despite US opposition, they would continue negotiations aimed at implementing and ratifying the Kyoto Protocol.

The South African Mineral and Petroleum Resources Development Bill 2001 (the "Bill") is the successor to the Mineral Development Bill, which was circulated for public comment during December 2000. Although not yet circulated for public comment, the Bill perpetuates the principle which forms the basis of the Mineral Development Bill, namely that the State intends to allow historically disadvantaged persons access to the mineral wealth of South Africa and to administer the South African industry for the benefit of all South Africans. To achieve these broad objectives, the rights to all minerals, whether privately held or not, will vest in the State from the date of the promulgation of the Bill as binding legislation. Applications will then be made directly to the State for the

right to prospect and mine for all minerals and the concept of the common law ownership of mineral rights and mining rights will be extinguished.

Companies who are the holders of valid authorisations as at the date of the promulgation of the Bill as binding legislation, will have their existing "old order mining rights" converted to a new form of "mining right" as provided for in the Bill. Following the conversion of the "old order mining rights", mining companies will have to apply for a mining right within five years. If a mining right is granted, it will be valid for a maximum period of 30 years. "Old order mining rights" for which no mining authorisation or prospecting permit exists, or where no prospecting or mining activities are conducted, will be extinguished after a period of one year, during which period the holder will have an exclusive right to make full application for a new form of right under the new legislation.

The above description of the Bill is based on discussions and liaison with government and the mining industry. The draft Bill may, when circulated for public comment, contain different provisions.

Native title and land claims

Land in Australia and South Africa owned or used by the Group may be the subject of land claims.

In Australia, the Commonwealth government's Native Title Act 1993 recognises native title and established processes relating to mining and exploration rights. Native title represents the traditional rights and interests that the Aboriginal people have in relation to land. Once extinguished it cannot be revived although compensation is payable, generally by the Commonwealth government. Claims are decided on a factual basis and determined ultimately by the Federal Court of Australia. Where existing mining leases are held, those rights are not affected if a native title claim is lodged. If native title has been extinguished, future mining leases can be granted without reference to native title. If it has not been extinguished, the Native Title Act 1993 provides procedural rights for registered native title claimants including the 'right to negotiate' with respect to the grant of mining rights, including exploration titles and the compulsory acquisition of land. While the right to negotiate does not include a veto on the grant of a title, it may require financial payments to be made. Native title claims have been made over areas where the Group has mining operations, however, the Directors believe that such claims will not have a material impact on the Group's existing operations.

In South Africa, the government's Restitution of Land Rights Act 1994 provides remedies for persons who have been dispossessed of rights in land as a result of past racially discriminatory laws or practices. Claims under the Restitution of Land Rights Act had to be lodged by 31 December 1998. The Land Claims Court is empowered to make orders concerning the restoration of land or any portion of land, the payment of compensation, compelling the State to include a claimant as a beneficiary in the State support programme for housing or granting the claimant an appropriate right in alternatively designated State land or with any alternative and appropriate relief. The Group has received unofficial reports that approximately 350 land claims have been lodged in relation to the surface rights of the Group's various South African properties. The Company has very limited information about these land claims and can give no assurance that they, or any other land claims of which it is not aware, will not have an adverse effect on the Group's rights to the properties that are subject to the land claims.

The emphasis of the restitution of land rights process in South Africa is to provide an appropriate remedy in terms of a statutory process. The landowner is not required to provide the land seeker with a remedy. Existing legislation regulating the land restitution process in South Africa places this burden on the State. It is therefore unlikely that the Group will be the party that will be required to address the remedies sought by land seekers.

See further "Investment considerations – Industry considerations – Native title and land claims" in Part IV.

Safety and health

The Group's health and safety standards are reviewed by the Group on an ongoing basis. In addition, the Group's operations are subject to government authority inspections throughout the year, as well as health and safety audits at most operations. These inspections and audits have not resulted in any significant capital expenditures by the Group. However, certain of the Group's activities are inherently dangerous and the authorities responsible for administering health and safety standards have considerable inspection, injunction and penalty powers that, if exercised against the Group, could have an adverse impact on the Group's financial condition or results of operations.

The Group recognises that the health and safety of its employees and the maintenance of high environmental performance standards are significant responsibilities involved in the conduct of its operations. The Group's aim is to be recognised as a leader in health, safety and environmental management.

There is a serious problem with HIV/AIDS infections in South Africa generally. Certain of the Group's operations are addressing HIV/AIDS in the workforce at their operations in South Africa through awareness training

programmes both for new employees and on an ongoing basis for all employees. The World Health Organisation estimates that approximately 20% of the South African population is living with HIV/AIDS.

Duiker participates in a regional initiative known as the Power Belt AIDS Project, a mining community-based programme which targets AIDS awareness and safe sex practices through the provision of information to schools and clinics and the use of peer trainers in the community. The project is managed by the Council for Scientific and Industrial Research and is funded by affiliated businesses, government and international organisations.

The Company believes that these intervention and health programmes, the Group's contingency plans (which involve teaching multiple skills to the workforce and improving training and recruiting capacities) and the large number of unemployed skilled persons available in the region mitigate the financial impact on the Group's South African operations of the HIV/AIDS crisis in South Africa.

Operational hazards and insurance

The Group's operations are subject to numerous operating risks which include geological conditions such as unexpected geological features, unexpected seismic activity, climatic conditions such as flooding or drought, interruptions to power supplies, environmental hazards, technical failures, fires, explosions and other accidents at a mine, processing plant, cargo terminal or related facilities. These risks and hazards could also result in damage to, or destruction of, properties or production facilities, personal injury, environmental damage, business interruption and possible legal liability.

The Group maintains insurance through a number of international insurers. The Group maintains business interruption insurance in respect of substantially all of the Group's operations and property insurance which protects against losses relating to the Group's assets, and freight insurance which protects against losses relating to the transport of the Group's equipment, product inventory and concentrates. The Group's insurance does not cover every potential risk associated with its operations. In particular, meaningful coverage at reasonable rates is not obtainable by the Group or other companies within the industry for certain types of environmental hazards, such as pollution or other hazards as a result of the disposal of waste products. The occurrence of a significant adverse event, the risks of which are not fully covered by insurance, could have a material adverse effect on the Group's financial condition or results of operations. Moreover, no assurance can be given that the Group will be able to maintain adequate insurance in the future at rates it considers reasonable.

Labour and employee relations

The Xstrata AG Group has approximately 4,800 employees world-wide. Immediately following Completion, the Group is expected to have approximately 11,500 employees world-wide. The majority of these employees are unionised. In South Africa, the Group has a policy of recognising a trade union if its members make up more than half of the mine or plant's respective workforce. At each of the Group's South African operations, there is an annual collective bargaining process to determine the following year's rates of pay and general conditions.

Despite certain operations within the Group experiencing work stoppages and other forms of industrial action in recent years, such work stoppages and industrial action have not had any material effect on the operating results of the Group. The Company believes that all of the Group's operations have, in general, good relations with their employees and unions.

The Group operates various defined contribution pension plans covering a majority of employees world-wide. See "Additional information – Pensions" in paragraph 8 of Part VIII.

Competition

The markets in which the Group operates are competitive. Competition is largely on the basis of price. The Group competes with numerous suppliers in the same product areas, some of which have substantially greater reserve bases and manufacturing and financial resources. In addition, increased production capacity from competitors in other countries may increase competition in the markets in which the Group operates.

The Group's principal competitors in its main operations are set out below:

Coal

The Group is one of the world's largest export thermal coal producers. Significant export thermal coal competitors are Anglo American plc, BHP Billiton, Rio Tinto and coal producers operating in China.

Zinc

The Group is one of the largest zinc producers in the western world in terms of capacity accounting for approximately 7% of western world production and 20% of western European production. The Asturiana smelter is one of the lowest cost producers in the world. Significant zinc smelting competitors are Korea Zinc Company, Ltd., Pasminco Limited, n.v. Umicore SA, Noranda Inc., Teck Cominco Limited, Outokumpu Oyj and zinc smelting operations in China.

Chrome

The Group is the world's largest, in terms of both attributable production and attributable sales, and among the lowest cost producers of ferrochrome. Significant chrome competitors are Samancor Limited, Hernic (Pty) Limited, Ore & Metal and ferrochrome producers operating in Kazakhstan.

Vanadium

The Company believes that the Group is one of the world's largest producers of primary vanadium. Significant vanadium competitors are Highveld Steel and Vanadium Corporation Ltd and steel companies operating in China and Russia.

Directors, senior management and employees

Directors

Xstrata's board of directors is chaired by Willy Strothotte. The other members of the Board are Michael Davis, Trevor Reid, Santiago Zaldumbide, Dr. Reto Domeniconi, Ivan Glasenberg, Paul Hazen, David Issroff, Robert MacDonnell, Sir Steve Robson and Dr. Frederik Roux. In addition, David Rough has agreed to become a Non-executive Director and Deputy Chairman of the Company with effect from 1 April 2002.

Executive Directors

Michael Davis, aged 44, Chief Executive. Mr. Davis was appointed as Chief Executive of Xstrata AG in October 2001. He joined Gencor Limited in early 1994 from ESKOM, the South African electricity utility, where he was an executive director. Mr. Davis was appointed Executive Chairman of Ingwe Coal Corporation Limited in 1995, and Chief Financial Officer and an executive director of Billiton Plc in July 1997.

Trevor Reid, aged 41, Finance Director. Mr. Reid joined Xstrata AG in January 2002. Prior to joining Xstrata AG, he was Global Head of Resource Banking at the Standard Bank Group. He joined the Standard Bank Group in 1997 from Warrior International Limited, a corporate finance boutique specialising in the minerals sector.

Santiago Zaldumbide, aged 59, Executive Director, Chief Executive of the Zinc Business and Executive Chairman of Asturiana. Mr. Zaldumbide is a previous Chief Executive Officer and Director of Unión Explosivos Río Tinto and of Petróleos del Norte. In 1990, Petróleos del Norte became part of the Repsol Oil Group where Mr. Zaldumbide was responsible for establishing the international structure of the enlarged Repsol Oil Group. In 1994 he was appointed Chief Executive Officer of the Corporación Industrial de Banesto and in December 1997 Chairman and Chief Executive Officer of Asturiana.

Non-executive Directors

Willy Strothotte, aged 58, is Chairman of Glencore International. From 1961 to 1978 Mr. Strothotte held various positions with responsibility for international trading in metals and minerals with Frank & Schulte, C Tennant Sons & Co and ICC Metals. In 1978, Mr. Strothotte joined Glencore International, taking up the position of head of metals and minerals in 1984. Mr. Strothotte was appointed Chief Executive Officer of Glencore in 1993 and held the combined positions of chairman and Chief Executive Officer from 1994 until 2001. Mr. Strothotte has been chairman of Xstrata AG since 1994 and is also currently a director of Metaleurop SA, Century Aluminium Corporation, Anaconda Nickel Limited and Asturiana.

Dr. Reto Domeniconi, aged 65, joined the board of Xstrata AG in May 1997. He was Chief Financial Officer and a member of the board of Nestlé S.A., Suez Lyonnaise des Eaux, and other industrial groups and banks (Chairman of Coutts & Co. AG). He is also currently a director of Gucci Group and Sulzer AG.

Ivan Glasenberg, aged 45, is Chief Executive Officer of Glencore International which he joined in 1984. He worked in the coal department in South Africa for three years and in Australia for two years. From 1989 to 1990, he managed Glencore International's Hong Kong and Beijing offices. In 1991 he became head of the coal department and in 2002 Chief Executive Officer of Glencore International. He is also currently a director of Anaconda Nickel Limited.

Paul Hazen, aged 60, joined the board of Xstrata AG in May 2000. Mr. Hazen is former Chairman and CEO of Wells Fargo and Company. Mr. Hazen retired in April 2001 as Chairman after a 30 year career with the bank. Mr. Hazen is currently Chairman of Accel-KKR and senior advisor to KKR. He also serves as deputy chairman and director of Vodafone Group Plc and as a director of Safeway, Inc., Phelps Dodge Corporation, E.piphany, Inc., Willis Group Ltd. and KSL Recreation Corporation.

David Issroff, aged 35, joined the board of Xstrata AG in May 2000. Mr. Issroff joined Glencore South Africa in 1989. In 1992, he transferred to Glencore's head office in Switzerland with responsibility for the marketing of ferroalloys. In 1997, he was appointed head of the Ferroalloys Division.

Robert MacDonnell, aged 64, joined the board of Xstrata AG in May 1997. Prior to joining Kohlberg Kravis Roberts & Co. in 1976, Mr. MacDonnell was a Management Consultant at Arthur Andersen & Co. He subsequently formed his own firm, which specialised in small management buyouts. Mr. MacDonnell became the first non-founding partner of KKR in 1982. As such, he participated in virtually all investment decisions until the firm expanded in the late 1980s. Mr. MacDonnell is also currently a director of Safeway, Inc. and is a partner in US Natural Resources, Inc. and Pacific Realty.

Sir Steve Robson CB, aged 58, retired as Second Permanent Secretary at HM Treasury in January 2001. He had joined HM Treasury after leaving university. His early career included a period as Private Secretary to the Chancellor of the Exchequer and a two year secondment to Investors in Industry plc (3i). From 1997 until his retirement, his responsibilities included the legal framework for regulation of the UK financial services industry, public private partnerships, procurement policy including the private finance initiative and the Treasury's enterprises and growth unit. Sir Steve is a director of Cazenove Group plc and The Royal Bank of Scotland Group plc.

David Rough, aged 51, was Group Director (Investments) of Legal & General Group Plc from 1 June 1991 until 31 December 2001 when he stepped down prior to retiring from Legal & General in June 2002. As Group Director (Investments) Mr. Rough headed all aspects of fund management within Legal & General Investments. Mr. Rough joined Legal & General Investments as UK Equities Director in January 1989. Prior to this he worked as Investment Manager for Royal Insurance, which he joined in 1972. Mr. Rough has agreed to become a Non-executive Director and Deputy Chairman of the Company with effect from 1 April 2002.

Dr. Frederik Roux, aged 54, joined Johannesburg Consolidated Investment Company Limited in 1976, where he held positions in the Finance, Base Metals, Gold and Platinum divisions. In 1990, he joined Gencor Limited where he became Chairman of Alusaf and Executive Director (responsible for Base Metals and Heavy Minerals). Since 1997, he has pursued private business interests in game ranching and safaris in South Africa.

Corporate management

Brian Azzopardi, aged 34, Group Controller. Mr. Azzopardi joined Xstrata AG in 1997. He is a fellow of the Chartered Association of Certified Accountants, United Kingdom. Mr. Azzopardi worked for six years at PricewaterhouseCoopers in Milan and Russia in the areas of audit and business advisory. In 1995, he was appointed as Group Financial Controller of Alfa Group, a prominent financial industrial group based in the Russian Federation.

Gavin Foley, aged 45, General Manager, Business Development. Mr. Foley joined Xstrata AG in 1998. Mr. Foley has two engineering degrees and was employed in the South African mining industry for 10 years prior to becoming a mining investment analyst for eight years. Mr. Foley was employed in the investment banking sector in London for two years prior to joining Xstrata AG.

Marc Gonsalves, aged 40, General Manager, Corporate Affairs. Mr. Gonsalves joined Xstrata AG in January 2002. He has 11 years experience in the mining industry in the field of investor, media and government relations. He was Vice President Investor Relations and Communications at BHP Billiton prior to joining Xstrata AG.

Benny Levene, aged 37, Chief Legal Counsel. Mr. Levene joined Xstrata AG in 1997. Mr. Levene holds the degrees Bachelor of Commerce, Bachelor of Laws and Master of Laws and is admitted as an attorney of the Supreme Court of South Africa. He was a commercial partner of Werksmans Attorneys in South Africa for four years before joining Xstrata AG.

Operational management

Peter Coates, aged 56, is Chief Executive of the Coal Business. Mr. Coates has a degree in Mining Engineering and has 37 years' experience in the mining industry. He occupied a number of senior mining industry positions prior to joining Glencore in 1994. Since 1994, Mr. Coates has directed Glencore's coal operations in Australia and Colombia. Mr. Coates is also Chairman of the Coal Committee of the New South Wales Minerals Committee and a member of the Executive Committee of the Australian Coal Association.

Peter Freyberg, aged 43, is Chief Operating Officer of the Group's South African coal operations. Mr. Freyberg has a Bachelor of Science (Mining Engineering) and has 23 years' experience in the mining industry. Prior to joining the Duiker Group two years ago, he had various operational, technical and marketing roles for Anglo Coal's and Rio Tinto's operations, including PT Kaltim Prima Coal, Hamersley Iron, Copelmi Mineração and Carbones del Cerrejón.

Petrus Johannes Nienaber, aged 52, is Chief Executive of the Ferroalloys Business. Mr. Nienaber holds both a Bachelor and Honours degree in Engineering. Mr. Nienaber started his career as an Iscor bursary holder at Iscor Steelworks in Newcastle and worked for 14 years in the ferroalloy industry at both Samancor and CMI until in 1988 he became one of the founder members of what is now the Xstrata AG Group's chrome operations. In 1997, Mr. Nienaber was appointed Chief Executive of Xstrata's South African ferroalloy's operations.

Santiago Zaldumbide, in addition to being an Executive Director of Xstrata, is Chief Executive of the Zinc Business and Executive Chairman of Asturiana.

Employees

Upon completion of the Merger and the Acquisitions, the Group will have approximately 11,500 employees worldwide. These employees will be divided between each of the businesses and operations approximately as follows:

Coal Business	
Australian operations	1,595
South African operations	5,050
Zinc Business	1,301
Ferroalloys Business	
Chrome operations	2,874
Vanadium operations	612
Additional activities	35
Head office	15

Employee share schemes

The Xstrata AG Group has historically pursued a policy of encouraging employees to acquire Xstrata AG Shares and linking a significant element of employees' variable reward to the performance of the Xstrata AG Group. The Group considers that a continuation of this policy is essential to align the interests of the Executive Directors and key employees with the performance of the business and the interests of Shareholders.

Immediately prior to the Merger, the Xstrata AG Group operated three share incentive schemes, the Xstrata AG Share Schemes, in which directors and employees participate. Options and awards which are outstanding under these schemes at the time of the Merger will be replaced by equivalent rights over a number of Ordinary Shares which is in proportion, on the basis of the Exchange Ratio, to the number of Xstrata AG Shares under the existing rights. The Company will assume responsibility for satisfying such replacement rights. No further options or awards will be granted under these schemes. Details of the Xstrata AG Share Schemes as they will continue to apply to the replacement rights are set out under "Additional information - Details of share schemes" in paragraph 7 of Part VIII.

After Admission, it is proposed that the Company will operate the Xstrata long term incentive plan (the "LTIP") details of which are set out under "Additional information - Details of share schemes - The Xstrata LTIP" in paragraph 7.1 of Part VIII. It is intended that certain employees and Directors (but not Non-executive Directors) will be granted options or awards under the LTIP shortly after Admission and thereafter awards will be made on an annual basis.

The Xstrata LTIP

The Company's remuneration committee has, with the assistance of the Group's advisers, reviewed the structure of remuneration for Executive Directors and senior management. Certain changes have been proposed to the current approach in order to remain competitive in attracting and retaining world class executive talent and to reflect best practice in the international market in which the Group operates. In order to do this, the remuneration committee has introduced the Xstrata LTIP which provides the opportunity for significant wealth creation by participants if the Group achieves outstanding performance for Shareholders. The Xstrata LTIP is consistent with the Group's reward philosophy, which aims to provide superior rewards for outstanding performance, and to provide a high proportion of "at risk" remuneration for Executive Directors and senior management.

The Xstrata LTIP provides for the grant of share options and contingent awards of free shares ("LTIP awards"). These elements will be complementary and ensure that the cyclical nature of the industry does not have an excessively adverse effect on employee remuneration in circumstances where the performance of the Group (and employees) has otherwise been good.

The LTIP awards will ensure that where the Company has performed well (measured in terms of comparative total shareholder return ("TSR") against a peer group of companies over a specified performance period) participants will be properly rewarded, even if share price growth is modest due to external factors, such as commodity prices or general economic conditions. The option element will only allow participants to benefit from future share price growth. The options will also be subject to a comparative TSR performance target to ensure that windfall growth in the share price as a result of external factors does not deliver excessive rewards.

In setting a performance condition the remuneration committee will set targets which encourage significant and sustained improvement in the underlying performance of the Group.

It is intended that the comparative measure of TSR will be used since it is expected that the Company's share price will be significantly influenced by commodity prices. Options and LTIP awards will vest in full to the extent that the Group ranks within the top 20% of the peer group, and as to 50% if it ranks at the median of the peer group. In between these two points straight line vesting will apply. No options or LTIP awards will vest for below median performance.

In calculating the TSR, the share price of a notional parcel of shares will be averaged over a period preceding the start and end of the specified performance period. The length of the averaging period will be determined by the remuneration committee prior to the grant of any award, but will not exceed 12 months.

The remuneration committee may adopt different performance conditions during the life of the Xstrata LTIP. Any new conditions would be no less demanding, and would be disclosed to Shareholders in the Company's annual report.

The aggregate value of options and LTIP awards made to an individual under the Xstrata LTIP in any one year will normally be limited to a maximum of two times base salary. The remuneration committee, however, retains the ability to vary this multiple up to four times base salary in very exceptional circumstances, such as the recruitment of a key individual. The ratio of LTIP awards to share options for the first awards made after Admission is intended to be 1:1, based on the value at the time of grant. The remuneration committee may change the ratio for future awards if it is thought appropriate.

The number of Ordinary Shares over which options will be granted, will be calculated using a Black Scholes valuation of the option (or a similar approach) which represents both the cost to the Group of providing the benefit and the value of the option itself as a component of the total remuneration package. This is also similar to the approach adopted by the Xstrata AG Group in the past. In continuing to take this approach, the Group has sought to reflect the remuneration cost of the share option grant more accurately (compared to, for example, valuing options according to the price of the underlying shares). In determining the value of LTIP awards, the underlying value of the shares will be used.

The awards for the Chief Executive and other Executive Directors will be subject to the same limits as those made to other participants under the Xstrata LTIP.

The Xstrata LTIP is, wherever possible, consistent with market practice for FTSE 100 companies and major sector peers and, in arriving at the proposals, due consideration has been given to the guidelines concerning corporate governance as set out in the Combined Code. Annual awards will be made under the Xstrata LTIP to minimise the impact of share volatility and to reflect existing best practice. The Xstrata LTIP contains provisions to allow it to be adapted, where necessary, to take account of the global nature of the Group's operations through the establishment of sub-plans tailored to meet local tax and/or regulatory conditions. In particular, in countries where the grant of a share option or LTIP award results in an immediate tax charge, arrangements may be put in place for loans to be made to the affected participants to help them meet this tax liability. No loans will be made to Directors.

Corporate governance

The Combined Code provides that the board of directors of a UK public company should include a balance of executive and non-executive directors, with non-executive directors comprising at least one-third of the board. The Combined Code further provides that a majority of non-executive directors should be independent of management and free from any business or other relationship which could materially interfere with the exercise of their independent judgement.

The Board has recently established an audit committee, a remuneration committee and a nominations committee.

The Combined Code requires that a majority of the members of the nominations committee and all members of the audit committee should be non-executive directors, the majority of whom are free from any business or other relationship which could materially interfere with the exercise of their independent judgement. The Combined Code requires that all members of the remuneration committee should be non-executive directors, all of whom are free from any business or other relationship which could materially interfere with the exercise of their independent judgement. Willy Strothotte is a member of the remuneration committee.

The audit committee is chaired by Dr. Reto Domeniconi. Its other members are Dr. Frederik Roux and Sir Steve Robson. The committee, which is to meet not less than twice a year, has responsibility for planning and review of the Group's annual report and accounts and half yearly reports, and the involvement of the Group's auditors in that process. The committee focuses particularly on compliance with legal requirements, accounting standards

and the rules of the UK Listing Authority and ensures that an effective system of internal financial control is maintained. The ultimate responsibility for reviewing and approving the annual report and accounts and the half yearly reports remains with the Board.

The remuneration committee is chaired by Willy Strothotte and its other members are David Rough and Paul Hazen. David Rough will not take up his position on the remuneration committee until his appointment as a Non-executive Director and Deputy Chairman of the Company becomes effective on 1 April 2002. The committee has responsibility for the determination, within agreed terms of reference, of specific remuneration packages for the Chief Executive, Finance Director and each of the other Executive Directors, including pension rights, bonuses and any compensation payments. The remuneration committee will have responsibility following Admission for determining grants of options and share awards under the LTIP.

The nominations committee is chaired by David Rough and its other members are Robert MacDonnell and Ivan Glasenberg. David Rough will not take up his position on the nominations committee until his appointment as a Non-executive Director and Deputy Chairman of the Company becomes effective on 1 April 2002. The committee has responsibility for nominating candidates to fill Board vacancies and makes recommendations to the Board on Board composition and balance.

Save as mentioned above, following the Merger and Admission, the Directors intend to comply with the requirements of the Combined Code.

In line with the recommendations of the Hampel report on corporate governance, it is intended that the Non-executive Directors (other than those Non-executive Directors who are Glencore International nominees) will be given the opportunity to apply a proportion of their post tax fees in the subscription of Ordinary Shares.

In addition, the Company will, upon Admission, comply with a code of securities dealings in relation to the Ordinary Shares and other securities which is based on, and is no less exacting than, the Model Code published in the Listing Rules. The code will apply to the Directors and relevant employees of the Group.

Swiss tax residency

The Swiss tax authorities have confirmed that, on the assumption that the affairs of the Company are conducted as the Directors intend, they will regard the Company as a resident of Switzerland for the purposes of Swiss taxation law and application of the Switzerland/UK Double Taxation convention. The UK Inland Revenue has indicated that, based on the proposed location and structure of management as described to it by the Directors, and on the assumption that the affairs of the Company are conducted as the Directors intend and on the basis of the Swiss ruling noted above, it will not regard the Company as resident in the UK for the purposes of UK taxation law. The Directors intend to conduct the Company's affairs as described to the Inland Revenue. Accordingly, assuming the affairs are so conducted, the Company should be treated as resident in Switzerland and not in the UK for tax purposes. This position will, however, be reviewed from time to time and it is possible that the Company could in the future become resident for the purposes of taxation in the UK and elsewhere.

Dividend policy

The Directors intend to adopt a progressive dividend policy which will take into account the underlying growth in earnings of the Group, as well as its capital requirements and cash flows, whilst maintaining an appropriate level of dividend cover. However, as a company incorporated in England and Wales, the Company may only pay dividends if distributable profits are available for the purpose; as a holding company, the Company will be dependent upon dividends and interest distributed to it by its subsidiaries.

For illustrative purposes, and assuming that the Group had been in existence and the Ordinary Shares admitted to trading on the London Stock Exchange since 31 December 2000 with the capital structure of the Group which is expected to be in place on Admission (but excluding the Global Offer and related net proceeds), and on the basis of results to date, the Directors have estimated that they would have recommended an aggregate dividend in respect of the year ended 31 December 2001 of 21.75p per Ordinary Share. This would give a notional dividend yield of approximately 2.5% based on the Offer Price.

The Directors intend that the Company will pay a final dividend in April 2003 in respect of the year ending 31 December 2002 and an interim dividend in September 2003 in respect of the half year to 30 June 2003. Thereafter, the Directors intend that interim and final dividends will be paid in September and April in each year in the approximate proportions of one-third and two-thirds of the total annual dividend, respectively.

The Company publishes its accounts in US dollars. Any dividends declared by the Company will generally be paid in US dollars unless a Shareholder elects to receive dividends in pounds sterling, Euro or Swiss Francs.

Fluctuations in the exchange rate between pounds sterling, Euro or Swiss Francs and US dollars will affect the pound sterling, Euro or Swiss Franc amount received in respect of dividend payments declared in US dollars by the Company.

As the Company is Swiss tax resident, dividends paid by the Company will be subject to Swiss federal withholding tax. Swiss federal withholding tax is currently charged at the rate of 35%. Shareholders who are residents of countries that have double taxation agreements with Switzerland will generally be entitled to a refund of part of that withholding tax from the Swiss authorities but the refund is partial only and a Shareholder can only obtain the refund by submitting the relevant claim forms to the Swiss authorities. For further information see "Additional information – UK Taxation", "Additional information – Swiss Taxation" and "Additional information – US Taxation" in paragraphs 15, 16 and 17, respectively, of Part VIII.

Takeover regulation

It is currently understood that the City Code will not apply to the Company since, despite being incorporated in the UK, it is not resident in the UK for the purposes of the City Code as it does not have its place of central management in the UK. The Company has also been advised that the Swiss Stock Exchange and Securities Trading Act, which governs takeovers of Swiss companies, will not apply to it because it is not incorporated in Switzerland. As a result, a takeover of the Company would be unregulated by each of the UK and Swiss takeover authorities.

The Company intends to observe best corporate governance practice in the UK and, given that the Company will not be governed by the City Code, has incorporated provisions in the Articles to provide Shareholders with certain takeover protections which will be administered by the Board. Glencore International has undertaken in the Relationship Agreement to observe those provisions. Further details of these provisions are contained in "Additional information – Summary of the memorandum and articles of association" in paragraph 3 of Part VIII. Broadly, they provide that where either:

(a) a person (alone or together with concert parties) acquires 30% or more of the Company's voting rights; or

(b) a person (alone or together with concert parties) holding between 30% and 50% of the Company's voting rights acquires further voting rights,

then, unless such acquisition is accompanied by an unconditional general offer to Shareholders in cash, or accompanied by a full cash alternative, at not less than the highest price paid by the bidder and its associates in the preceding 12 months (as if Rule 9 of the City Code applied to Xstrata), or unless the Board agrees otherwise, that person will be in breach of the Articles. In that event, the Board has the authority to withhold dividends, impose voting restrictions and ultimately, compulsorily to divest Ordinary Shares acquired or held in breach of the Articles. See further "Investment considerations – Market considerations – Takeovers" in Part IV.

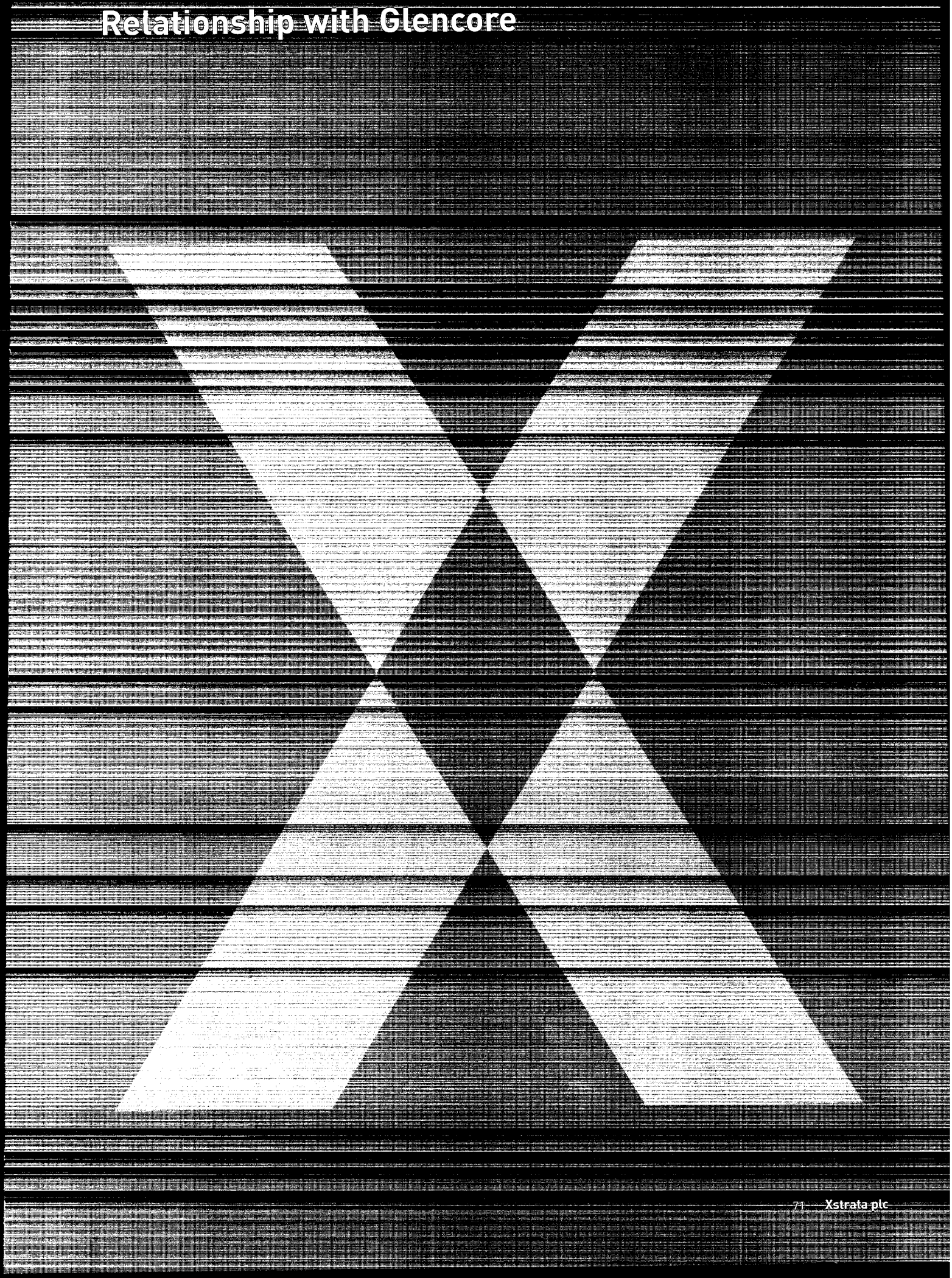
Use of proceeds

The Company will receive the net proceeds of the issue of the new Ordinary Shares. The net proceeds are estimated to be approximately £829 million (US$1,181 million) after deduction of the Underwriters' estimated commissions and other fees and expenses of approximately £41 million payable by the Company in connection with the Global Offer and assuming that the Manager's Option is not exercised.

The Company and certain members of the Group have also entered into a US$1.4 billion Syndicated Loan Facility Agreement. Further details of this facility are set out in "Additional information – Agreements relating to the Acquisitions and the Merger – Syndicated Loan Facility Agreement" in paragraph 10 of Part VIII.

The net proceeds of the Global Offer referred to above will be used to fund the Acquisitions, with the remainder of the funding required for the Acquisitions being cash raised from borrowings made under the Syndicated Loan Facility Agreement.

Relationship with Glencore



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Commercial relationship

General

Immediately following the completion of the Acquisitions, the Merger and Admission, Glencore International will own 40% of the issued ordinary share capital of the Company (even if the Manager's Option is exercised) and will be its largest shareholder.

Established in 1974, Glencore is a major diversified natural resources group with world-wide activity in the mining, smelting, refining, processing and trading of metals and minerals, energy products and agricultural products and is principally owned by its employees and management. Glencore's principal offices are in Baar, Switzerland; Stamford, Connecticut, United States; London, United Kingdom; and Rotterdam, the Netherlands. Glencore's trading and investment activities and relationships with producers and consumers of raw materials are supported by a global network of 69 field offices located in over 50 countries. Glencore employs approximately 2,000 people world-wide excluding people employed in the operation of its industrial assets. Glencore's turnover for the year ended 31 December 2000 was US$48 billion. As at 31 December 2000, Glencore had total assets of US$10.2 billion and total shareholders' equity of US$1.9 billion.

In 1990, Glencore International became a substantial shareholder in Xstrata AG, following which Xstrata AG built a portfolio of businesses operating in the natural resources sector.

The Company believes that the Group benefits from Glencore's ability to identify investment opportunities and to market the commodities which the Group produces. The Company further believes that Glencore benefits from its marketing agreements with the Group, which generally provide for exclusive marketing rights in favour of Glencore with respect to the commodities which the Group produces.

Most of the Company's operating subsidiaries have entered into long-term agency agreements with Glencore under which Glencore provides marketing services in exchange for agency fees. These fees are negotiated on arm's length terms and range from 3.5% to 5% of the FOB sales revenue. In a number of instances, Glencore acts as collecting agent and also assumes 60% of the non-payment risk of the Group's ferrochrome trade receivables and 100% of the non-payment risk of the Group's vanadium trade receivables.

For a description of certain of the Xstrata AG Group's, the Enex Group's and the Duiker Group's transactions with Glencore for the three years ended 31 December 2001, see "Accountants' Report on the Xstrata AG Group", "Accountants' Report on the Enex Group" and "Accountants' Report on the Duiker Group", respectively, in Part VI.

Coal Business

Duiker Marketing AG and Xstrata (Schweiz) AG have entered into a Market Advisory Agreement with Glencore International. Pursuant to this agreement, Glencore International will, for a fee of US$0.50 per attributable tonne of coal exported by the Group from Australia or South Africa, act as the Group's market adviser with respect to its export production of coal (other than for Cumnock No. 1 Colliery Pty Limited ("Cumnock") while it is not a wholly-owned subsidiary and other than for export sales from the TAV/TESA joint venture unless and until the current marketing arrangements with TESA are terminated). Glencore International will advise the Group regarding the placement of its export coal in the world market, the future planning for that placement and market opportunities available for the future sale of export coal. Glencore International will also provide the Group's marketing department with real time market intelligence and access to Glencore International's network of global offices. In providing such services Glencore International has agreed not to act for the greater benefit of itself to the disadvantage of the Group.

The Market Advisory Agreement will remain in full force and effect for a period of 20 years, with a review of the fee at the end of each fifth year thereof. The Market Advisory Agreement may be terminated by Duiker Marketing AG after giving 45 days' notice if any person and its affiliates holds, directly or indirectly, 50% or more of the issued share capital of Glencore International. The Market Advisory Agreement may also be terminated by either party with immediate effect if:

- the other party commits a material breach of the agreement and fails to remedy the breach, if capable of remedy, within 30 days of receiving written notice from the other party identifying such breach; or
- the other party enters into liquidation or is declared insolvent.

Xstrata (Schweiz) AG has agreed to guarantee the performance by Duiker Marketing AG of its obligations under the Market Advisory Agreement.

On 5 January 1995, Cumnock entered into a sales and marketing agreement with Glencore International. Pursuant to this agreement Glencore International provides sales and marketing services to Cumnock and

Cumnock appoints Glencore International as its agent to market coal. Glencore International is entitled to a commission of US$0.75 per tonne for all coal sold by Cumnock.

Zinc Business

During 1999, Asturiana entered into a service agreement with Glencore (the "Asturiana Service Agreement"), under the terms of which Glencore provides advice and assistance with respect to the acquisition of mining and/or metallurgical interests and advice in connection with Asturiana's hedging policy and improvement of its position in the zinc market.

The fees to be paid by Asturiana under the Asturiana Service Agreement are approximately US$2.0 million per annum. Unless renewed, the agreement will expire on 31 December 2004.

Ferroalloys Business

Chrome operations

Xstrata South Africa has entered into a ferrochrome marketing agreement with Glencore International appointing Glencore International as its exclusive world-wide marketing agent for the sale of Xstrata South Africa's entire production of ferrochrome other than ferrochrome sold into the US, Canada and certain Asian countries. The agreement continues for as long as Xstrata South Africa produces ferrochrome. Glencore International is obliged to use its best endeavours to arrange sales at prevailing market rates as agreed from time to time by Xstrata South Africa and Glencore International. Glencore International is entitled to receive an agency fee of 4.25% on FOB sales revenues. Glencore International assumes 60% of the risk of non-payment by customers.

If at any time Xstrata South Africa notifies Glencore International that it is able to find purchasers for its production at prices higher than those generally obtainable by Glencore International, Xstrata South Africa may, unless Glencore International is able to obtain similar prices, sell its products in the market. Glencore International is nevertheless entitled to an agency fee of 3.5% of FOB sales revenue as set forth above in respect of such sales. Glencore International is also entitled to receive a US$50,000 monthly fee in connection with market analysis and administration tasks performed by Glencore International.

Ferrochrome sold into the United States and Canada is distributed by Glencore Ltd. and Glencore Canada Inc., respectively, under two distribution agreements. These distribution agreements continue indefinitely, with both parties having the right to terminate the agreement on 12 months' notice. The percentage of distribution fees payable by the Xstrata AG Group in respect of ferrochrome sold under the distribution agreement is substantially the same as the commission paid in respect of ferrochrome sold under the marketing agreement. In addition, Mitsui & Co. Ltd. has the right to market 30,000 tonnes of the annual production from the Lydenburg furnaces to certain Asian countries.

Vanadium operations

Xstrata AG's wholly-owned marketing agent, Xstrata Marketing Corporation A.V.V. ("Xstrata Marketing"), has entered into a 20 year marketing agreement expiring on 31 December 2017, in respect of Rhovan's and Vantech's entire production of vanadium other than vanadium sold into the US or Canada. Pursuant to this agreement Glencore International agreed to purchase Rhovan's entire production of vanadium pentoxide and Vantech's entire production of vanadium pentoxide and ferrovanadium until 31 December 2000 and agreed to pay Xstrata Marketing a fixed minimum delivered price of US$3.50 per pound of vanadium pentoxide and US$16.80 per kilogramme of ferrovanadium (the "offtake arrangement"). The offtake arrangement was restructured with effect from 1 January 2000 and provided that half of the vanadium pentoxide offtake entitlement for the year 2000 was allocated equally to the years 2001 and 2002 at US$3.65 per pound (representing a significant premium over the average price of a pound of vanadium pentoxide in the year ended 31 December 2001) and US$3.80 per pound, respectively. As at 18 March 2002 (being the latest practicable date prior to the publication of this document) the price of a pound of vanadium pentoxide was US$1.05/lb (Source: Datastream – minimum 98% V_2O_5 quoted by Metal Bulletin).

Glencore International is obliged to use its best endeavours to arrange sales of vanadium pentoxide and ferrovanadium which are not covered by the fixed price arrangement described above. Xstrata Marketing is obliged to pay to Glencore International an agency fee of 3.5% on FOB sales revenues and an additional fee of 1.5% on FOB sales revenues for assuming the risk of non-payment by customers on this material.

If at any time Xstrata Marketing notifies Glencore International that it is able to find purchasers for its production at prices higher than those generally obtainable by Glencore International, Xstrata Marketing may, unless Glencore International is able to obtain similar prices, sell its products in the market. Glencore International is nevertheless entitled to the 3.5% agency fees described above in respect of such sales.

Vanadium pentoxide and ferrovanadium sold into the United States or Canada is distributed by Glencore Ltd. and Glencore Canada Inc., respectively, under two distribution agreements. The distribution agreements have the same term as the marketing agreement. The percentage of distribution fees payable by the Xstrata AG Group in respect of vanadium pentoxide and ferrovanadium is substantially the same as the commission paid in respect of vanadium pentoxide and ferrovanadium sold under the marketing agreement.

Xstrata Windimurra Pty Ltd has entered into a 10 year marketing agreement with Glencore International, dated 24 December 1998, in respect of the entire production of the Group's Australian vanadium operation pursuant to which an agency fee of 3.5% on FOB sales revenues is payable by Xstrata Windimurra Pty Ltd to Glencore International or, if production exceeds four million pounds of vanadium pentoxide in any year, the greater of US$500,000 (CPI) or 3.5% on FOB sales revenues. Glencore International assumes the risk of non-payment by customers.

If at any time Xstrata Windimurra Pty Ltd notifies Glencore International that it is able to find purchasers for the Group's Australian vanadium operation's production at prices higher than those generally obtainable by Glencore International, Xstrata Windimurra Pty Ltd may, unless Glencore International is able to obtain similar prices, sell the Group's Australian vanadium operation's production in the market. Glencore International is nevertheless entitled to the 3.5% agency fees described above in respect of such sales.

Relationship with controlling shareholder

Immediately following the completion of the Acquisitions, the Merger and Admission, Glencore International will own 40% of the issued ordinary share capital of the Company (even if the Manager's Option is exercised) and will be regarded as a controlling shareholder of the Company for the purposes of the Listing Rules.

Glencore International and the Company have entered into an agreement dated 20 March 2002 (the "Relationship Agreement") which will, conditional upon Admission, regulate the ongoing relationship between them. The principal purpose of the Relationship Agreement is to ensure that the Group is capable of carrying on its business independently of Glencore and that transactions and relationships with Glencore are at arm's length and on normal commercial terms. The Relationship Agreement will therefore ensure that the Company complies with its obligations under the Listing Rules. The Relationship Agreement will continue for so long as the Ordinary Shares are listed on the Official List and traded on the London Stock Exchange and Glencore International is the Company's controlling shareholder under the Listing Rules. Currently, a controlling shareholder is a person who holds either 30% or more of the votes exercisable at general meetings of the Company or has the right to control the appointment of the majority of the Directors.

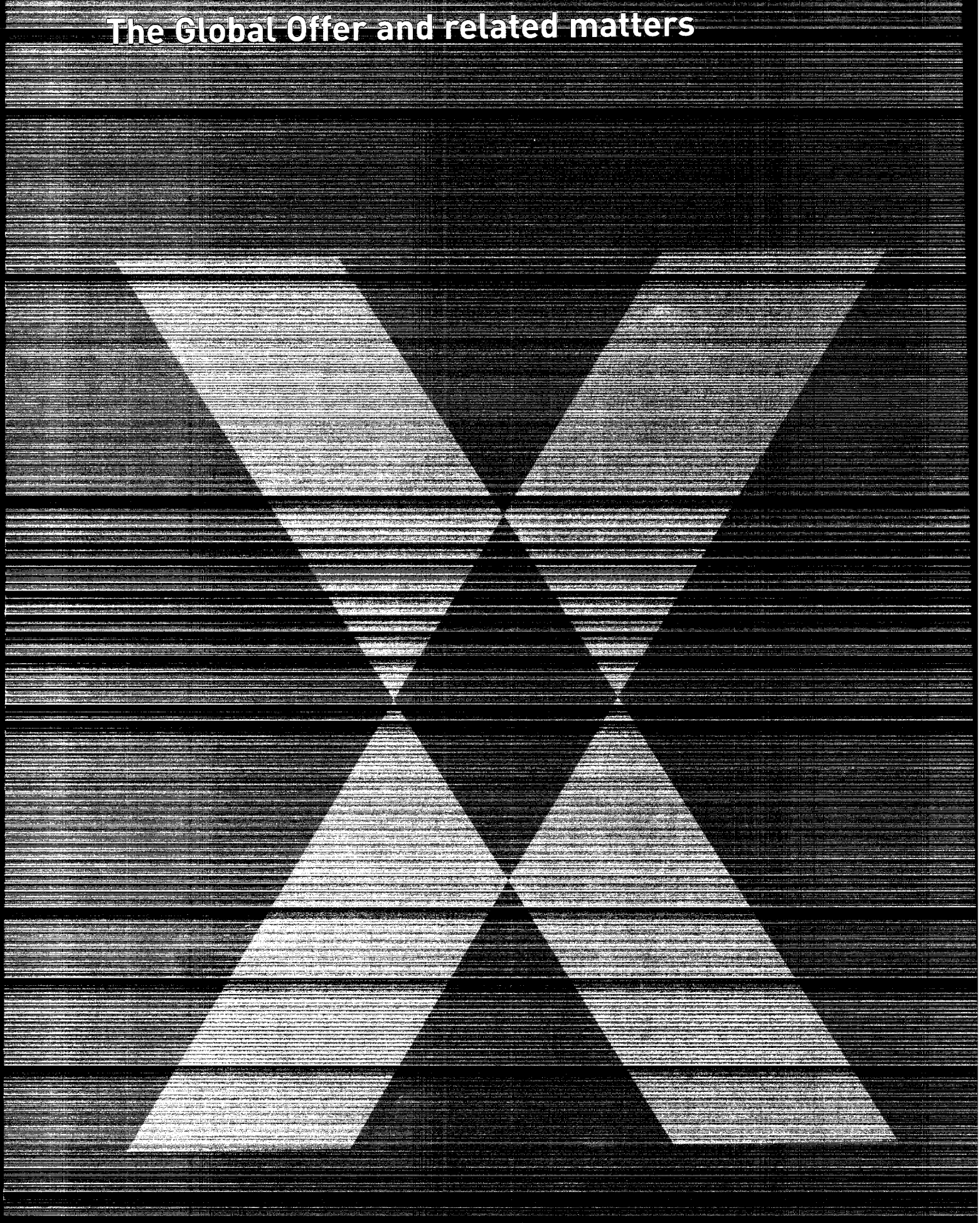
Under the Relationship Agreement:

- the Company and Glencore International agree that transactions and relationships between the Group and Glencore will be conducted at arm's length and on a normal commercial basis;
- the Company and Glencore International agree to ensure that the Company is capable, at all times, of carrying on its business independently of any member of Glencore;
- Glencore International is only permitted to nominate a maximum of three directors of the Company or (if lower or higher) such number of directors of the Company nominated by Glencore International as is equal to one less than the number of Independent Directors. In this respect, Glencore International has initially nominated Messrs. Strothotte, Glasenberg and Issroff to the Board;
- Directors of the Company nominated by Glencore International shall not be permitted, unless the Independent Directors agree otherwise, to vote on any resolutions of the Board to approve any aspect of the Company's involvement in or enforcement of any arrangements, agreements or transactions with any member of Glencore;
- Glencore International undertakes to procure that Glencore shall not exercise its voting rights to procure amendment to the constitutional documents of the Company which would be inconsistent with, or undermine, the Relationship Agreement; and
- Glencore International undertakes to observe the provisions in the Company's Articles providing takeover protection whilst the City Code does not apply to the Company.

The Directors believe that the terms of the Relationship Agreement as described above will enable the Group to carry on its business independently from Glencore.

In addition, under the Acquisition Agreement Glencore International has agreed for a period of three years following Completion to cooperate with the Company to give it the opportunity to enter into any transaction which involves the mining of coal or any related processing business which is carried on in whole or in part within Australia or South Africa in preference to Glencore International or a member of its group. Under the terms of the Acquisition Agreement, the Vendors are also prohibited for a period of 12 months from soliciting offers of employment with any senior executive of the Group. See "Additional Information – Agreements relating to the Acquisitions and the Merger – The Acquisition Agreement" in paragraph 10 of Part VIII.

The Global Offer and related matters



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Shares subject to the Global Offer

Pursuant to the Global Offer, which is fully underwritten by the Underwriters in accordance with the terms of the Underwriting Agreement (further details of which are set out in paragraph 9 of Part VIII), the Company is raising approximately £829 million, net of underwriting commissions and other fees and expenses of approximately £41 million (assuming that the Manager's Option is not exercised).

The Global Offer comprises an offer of 100,000,000 new Ordinary Shares (representing approximately 44% of the expected issued ordinary share capital of the Company immediately following Admission (assuming that the Manager's Option is not exercised)). The Ordinary Shares the subject of the Manager's Option are new Ordinary Shares. The number of Ordinary Shares the subject of the Manager's Option is equivalent to 15% of the aggregate number of Ordinary Shares comprised in the Global Offer.

The rights attaching to the Ordinary Shares will be uniform in all respects and they will form a single class for all purposes.

The Global Offer

Under the Global Offer, Ordinary Shares will be available to institutional and certain other investors in the UK and elsewhere.

In addition, Paul Hazen, David Rough, Dr. Frederik Roux, Sir Steve Robson, Dr. Reto Domeniconi and Robert MacDonnell, who are Non-executive Directors, and Michael Davis, Trevor Reid and Santiago Zaldumbide, who are Executive Directors, have each been offered the opportunity to subscribe for Ordinary Shares up to a value of US$500,000 at the Offer Price. Certain members of management and key employees have also been given the opportunity to participate in the Global Offer.

Allocation and Pricing

All Ordinary Shares issued pursuant to the Global Offer will be issued at the Offer Price. Allocation of Ordinary Shares under the Global Offer will be determined on the basis of a number of factors, including whether the relevant investor is an existing shareholder of Xstrata AG. It is intended that eligible investors participating in the Global Offer who are existing shareholders of Xstrata AG will be treated favourably in determining allocations.

Ordinary Shares allocated under the Global Offer will be underwritten by the Underwriters as described in "Additional information – Underwriting arrangements – Underwriting Agreement" in paragraph 9 of Part VIII.

Stabilisation and the Manager's Option

In connection with the Global Offer, J.P. Morgan Securities Ltd., as stabilising manager, in consultation with the other Joint Bookrunners, may over-allot or effect other transactions with a view to supporting the market price of the Ordinary Shares at a level higher than that which might otherwise prevail for a limited period after the Offer Price is announced. However, there is no obligation on J.P. Morgan Securities Ltd. to do this. Such transactions may be effected on the London Stock Exchange, SWX, the over-the-counter market or otherwise. Such stabilising, if commenced, may be discontinued at any time and must be brought to an end after a limited period.

In connection with the Global Offer, the Company has granted J.P. Morgan Securities Ltd., on behalf of the Underwriters, an option (the "Manager's Option") which is exercisable, in whole or in part, upon notice by J.P. Morgan Securities Ltd., in consultation with the other Joint Bookrunners, for the period commencing with the date of this document and ending 30 days after Admission. Pursuant to the Manager's Option, J.P. Morgan Securities Ltd. may require the Company to issue up to 15,000,000 additional new Ordinary Shares at the Offer Price, inter alia, to cover over-allotments or further allotments, if any, in connection with the Global Offer and to cover short positions resulting from stabilisation transactions. Any Ordinary Shares issued by the Company following the exercise of the Manager's Option will be issued on the same terms and conditions as the Ordinary Shares being issued in the Global Offer.

Glencore Option Shares

If the Manager's Option is exercised, Glencore International is obliged to subscribe, at the Offer Price, for such number of additional Ordinary Shares as is necessary to maintain its shareholding in the Company at 40%.

Dealing arrangements

The Global Offer is subject to the satisfaction of conditions contained in the Underwriting Agreement including Admission occurring by 8.00 a.m. (London time) on 25 March 2002 or such later date as may be determined in accordance with such agreement. Certain conditions are not capable of waiver. Further details of the Underwriting Agreement are set out in paragraph 9 of Part VIII.

Admission is expected to take place and unconditional dealings in the Ordinary Shares are expected to commence on the London Stock Exchange at 8.00 a.m. (London time) on 25 March 2002. Swiss Admission is expected to take place and dealings in the Ordinary Shares are expected to commence on SWX at 9.00 a.m. (Central European time) on 25 March 2002. Ordinary Shares shall be quoted on the SWX in Swiss Francs. Settlements of dealings from that date will be on a three-day rolling basis. It is expected that Ordinary Shares allotted to investors in the Global Offer will be delivered in uncertificated form and settlement will take place through CREST on Admission and SIS on Swiss Admission. Investors in the Global Offer will pay the Offer Price in respect of the Ordinary Shares to be issued to them in such manner as shall be directed to them by the Underwriters.

It is expected that dealings in the Ordinary Shares will commence on a conditional basis on the London Stock Exchange on 20 March 2002. The earliest date for settlement of such dealings will be 25 March 2002. All dealings between the commencement of conditional dealings and the commencement of unconditional dealings will be on a "when issued basis". **If the Global Offer does not become unconditional all such dealings will be of no effect and any such dealings will be at the sole risk of the parties concerned.**

CREST

CREST is a paperless settlement procedure enabling securities to be evidenced otherwise than by a certificate and transferred otherwise than by a written instrument. Upon Admission, the Articles will permit the holding of Ordinary Shares under the CREST system. The Company has applied for the Ordinary Shares to be admitted to CREST with effect from Admission. Accordingly, settlement of transactions in the Ordinary Shares following Admission may take place within the CREST system if any shareholder so wishes.

CREST is a voluntary system and holders of Ordinary Shares who wish to receive and retain share certificates will be able to do so. Investors applying for Ordinary Shares under the Global Offer may, however, elect to receive Ordinary Shares in uncertificated form if they are a system-member (as defined in the CREST Regulations) in relation to CREST.

SIS

Ordinary Shares will only be traded on SWX in uncertificated form. SIS operates the RTGS settlement system SECOM, through which clearing instructions from SWX are automatically passed on for further processing on the settlement day. Transactions are routed via Swiss Interbank Clearing (SIC) or EuroSIC. SIC then ensures efficient and secure payment transfers in Swiss Francs between SWX members on an RTGS basis.

Settlement of transactions between CREST and SIS

Cross border exchange trading and settlement will take place though the link established between SIS and CREST.

Underwriting arrangements

Pursuant to the Underwriting Agreement, the Underwriters have agreed, subject to certain conditions, to procure subscribers for, or failing which subscribe themselves, the Ordinary Shares issued by the Company pursuant to the Global Offer.

The Underwriting Agreement contains a provision entitling the Global Co-ordinator, with the agreement of the other Joint Bookrunners, on behalf of the Underwriters, to terminate the Global Offer at any time prior to Admission in certain circumstances. If this right is exercised, the Global Offer will lapse and any moneys received in respect of the Global Offer will be returned to applicants without interest.

Any commissions received by the Global Co-ordinator (on behalf of itself and the other Underwriters) pursuant to the Underwriting Agreement may be retained, and any Ordinary Shares acquired by them may be retained or dealt in, by them for their own benefit. Investors should be aware that, while the ability of the Global Co-ordinator (on behalf of itself and the other Underwriters) to retain shares is not unusual in underwriting agreements, doing so to any significant degree could, by limiting the number of Ordinary Shares available in the market, affect volatility in the market price of the Ordinary Shares.

Further details of the terms of the Underwriting Agreement are set out in "Additional information – Underwriting arrangements" in paragraph 9 of Part VIII.

Lock-up arrangements

The Company has undertaken, subject to certain exceptions, in the Underwriting Agreement, among other things, not to issue, offer, lend, sell or contract to sell or issue, sell any option or contract to purchase, purchase any option or contract to sell or issue, mortgage, charge, pledge, assign, grant any option or warrant in respect of, or otherwise dispose of, directly or indirectly, any Ordinary Shares or any other securities exchangeable for or convertible into, or substantially similar to, Ordinary Shares (or any interest therein or in respect thereof) at any time, or enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Ordinary Shares, or enter into any other transaction with the same economic effect as, or agree to do, or publicly announce the intention to do, any of the foregoing until the date falling six months after Admission, without the prior written consent of the Global Co-ordinator on behalf of the Underwriters (not to be unreasonably withheld or delayed).

Glencore International has undertaken to the Global Co-ordinator, on behalf of the Underwriters, subject to certain exceptions, not to offer, lend, pledge, sell, contract to sell or grant any option, right or warrant to purchase, or otherwise transfer or dispose of, any Ordinary Shares until the date falling six months after Admission, without the prior written consent of the Global Co-ordinator. These lock-up arrangements allow Glencore International to lend Ordinary Shares to the Global Co-ordinator pursuant to the stock lending agreement described in paragraph 9.2 of "Additional information - Underwriting arrangements - Underwriting Agreement" in Part VIII.

Further details of these lock-up arrangements are contained in "Additional information – Underwriting arrangements – Lock-up Agreement" in paragraph 9 of Part VIII.

Securities laws

The distribution of this document and the offer of Ordinary Shares in certain jurisdictions may be restricted by law and therefore persons into whose possession this document comes should inform themselves about and observe any such restrictions, including those set out in paragraph 11 of Part VIII. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

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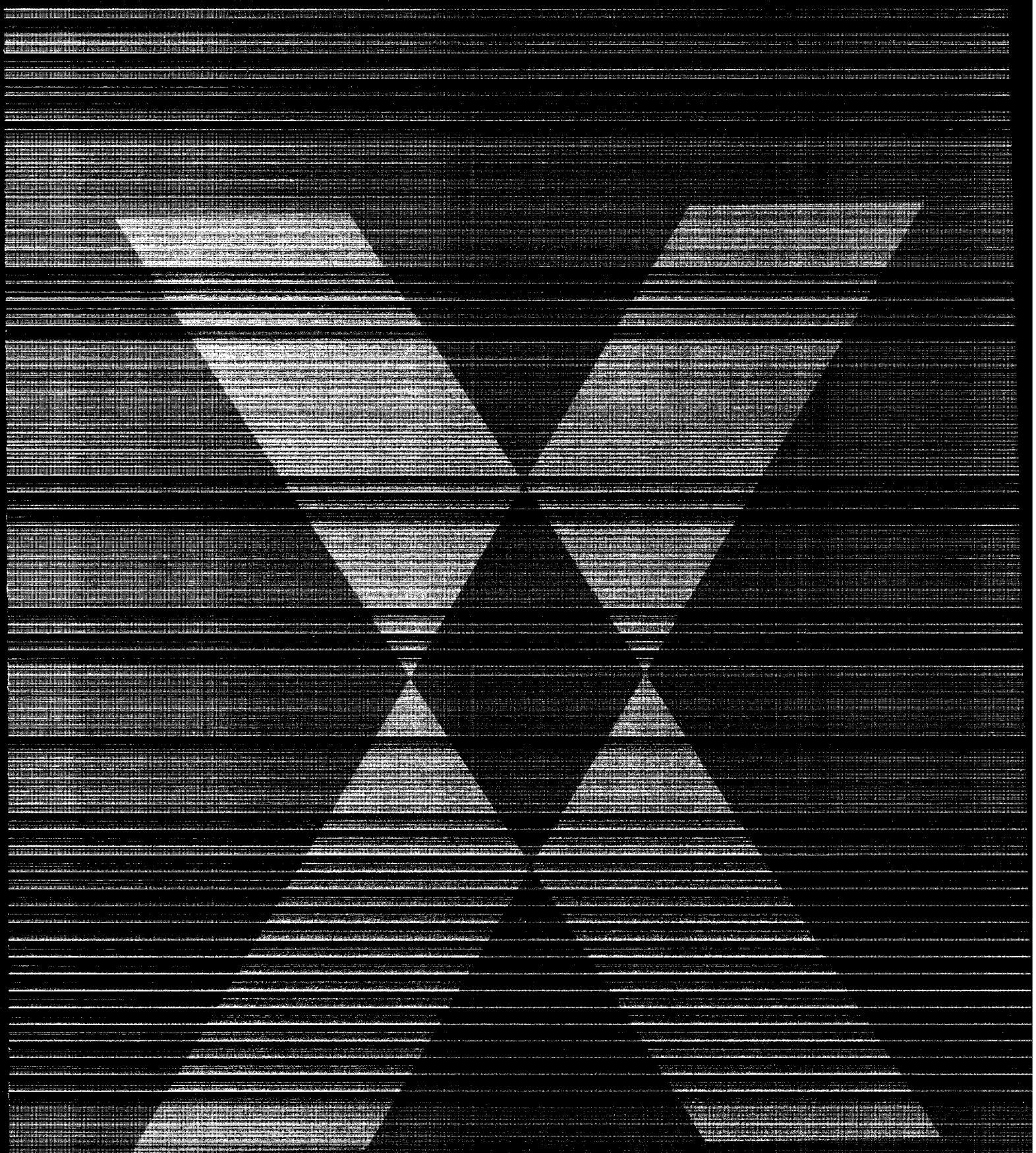
Investment considerations



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In addition to the other information contained in these Listing Particulars, prospective subscribers of Ordinary Shares should consider carefully the specific investment considerations set out below before making any decision to invest in Ordinary Shares. Additional investment considerations not presently known to the Company or that the Company currently deems immaterial may also impair the Group's business operations. The business, financial condition or results of operations of the Group could be materially adversely affected by any of these investment considerations. The trading price of Ordinary Shares could decline due to any of these investment considerations and investors could lose part or all of their investment.

Industry considerations

Commodity price volatility and cost efficiency

The Group's turnover and earnings are dependent upon prevailing prices for the commodities it produces. Historically, such prices have been volatile and are subject to wide fluctuations in response to relatively minor changes in the supply of, and demand for, such commodities, market uncertainty, the overall performance of world or regional economies and the related cyclicality in industries directly served by the Group and a variety of other factors beyond the control of the Company. Prices may also be affected by governmental actions and, in the case of coal, could be affected when the carbon tax is enforced in certain Central European countries in 2005 and if the Kyoto Protocol is ratified in the countries to which the Group supplies coal. See "Information on the Group – Regulatory and environmental matters" in Part I. In addition, speculative trades in certain commodities (including coal) on the world markets may cause short-term price fluctuations for such commodities. These external factors and the volatile nature of the commodity markets make it difficult to estimate future prices. Any substantial or extended decline in commodity prices would adversely affect the results of operations or financial condition of the Group.

As the Group, in common with its competitors, is unable to influence commodity prices directly, its competitiveness and long-term profitability are, to a significant degree, dependent upon its ability to reduce costs and maintain low-cost, efficient operations. Important cost inputs in the Group's operations generally include the extraction costs of raw materials and consumables such as reductants, power, labour and transport. The Group's production costs are also significantly affected by production volumes and, therefore, the Group's ability to maintain production levels and maximise capacity utilisation is a key factor in determining its overall cost competitiveness. The Group's ability to maintain earnings and undertake capital expenditure would be adversely affected in the event of a sustained material fall in world commodity prices, an appreciable rise in its production costs or a decline in its production volumes. There can be no assurance that the Group will be able to maintain or reduce production costs or maintain or increase its production volumes in the future.

Any increase in the price of a commodity may encourage other producers to increase their production of that commodity. Any over-production in a particular commodity which is in excess of demand could reduce the price of that commodity, thereby adversely affecting the Group's results of operations or financial condition.

Environmental, health and safety

Permits are required for many of the Group's operations and these permits are subject to modification, renewal or revocation by issuing authorities. Governmental authorities have the power to enforce compliance with applicable laws and regulations and violations may result in civil or criminal penalties, the curtailment or cessation of operations or both. Although compliance with these laws, regulations and permits has not had a material adverse effect on the results of operations or financial condition of the Group to date, such laws and regulations are subject to change and the Company is unable to predict the ultimate cost of compliance. Such costs could be substantial. There can be no assurance that the cost of complying with present or future laws or regulations will not adversely affect the results of operations or financial condition of the Group.

The Group's operations are extensively regulated. National, state and local authorities in the countries in which the Group has operations regulate the industries in which the Group operates with respect to matters such as employee health and safety, royalties, permitting and licensing requirements, planning and development, environmental compliance (including, for example, compliance with waste and waste water treatment and disposal, emissions and discharge requirements), plant and wildlife protection, reclamation and restoration of mining properties after mining is complete, surface subsidence from underground mining and the effects that mining has on groundwater quality and availability. Numerous governmental permits and approvals and leases are required for the Group's operations. The Group is required to prepare and present to national, state or local authorities data pertaining to the effect or impact that any proposed exploration, mining or production activities may have upon the environment. The costs, liabilities and requirements associated with complying with these laws and regulations or to comply with changes in these laws and regulations or the manner in which they are

applied or the cost of rehabilitation of site operations which have been closed down may be substantial and time-consuming and may delay the commencement or continuation of exploration, mining or production activities. There can be no assurance that compliance with these laws and regulations or changes thereto or the cost of rehabilitation of site operations which have been closed down will not adversely affect the results of operations or financial condition of the Group.

The possibility exists that new legislation or regulations may be adopted that may materially adversely affect the Group's operations, its cost structure or its customers' ability to use the commodities produced by the Group. New legislation or regulations may also require the Group or its customers to change operations significantly or incur increased costs which could have an adverse effect on the results of operations or financial condition of the Group.

In addition, a violation of health and safety laws relating to a mine or a failure to comply with the instructions of the relevant health and safety authorities could lead to, among other things, a temporary shutdown of all or a portion of the mine, a loss of the right to mine or the imposition of costly compliance procedures. If health and safety authorities require the Group to shut down all or a portion of a mine or to implement costly compliance measures, whether pursuant to existing or new health and safety laws and regulations, such measures could have a material adverse effect on the Group's results of operations and financial condition.

See "Information on the Group – Regulatory and environmental matters" in Part I.

Australian native title and South African land claims

In Australia, the Commonwealth government's Native Title Act 1993 recognises native title and establishes processes relating to mining and exploration rights. Native title represents the traditional rights and interests that the Aboriginal people have in relation to land. If native title has not been extinguished, the Native Title Act 1993 provides procedural rights for registered native title claimants including the 'right to negotiate' with respect to the grant of mining rights, including exploration titles and the compulsory acquisition of land. For further information, see "Information on the Group – Native title and land claims" in Part I. Native title claims have been made over areas where the Group has mining operations and there can be no assurance that such claims or any future claims will not have a material adverse effect on the Group's results of operations or financial condition or that additional claims will not be lodged in the future.

In South Africa, the government's Restitution of Land Rights Act 1994 provides remedies for persons who have been dispossessed of rights in land as a result of past racially discriminatory laws or practices. The Land Claims Court is empowered to make orders concerning the restoration of land or any portion of land, the payment of compensation, compelling the State to include a claimant as a beneficiary in a State support programme for housing or granting the claimant an appropriate right in alternatively designated State land or with any alternative and appropriate relief. For further information, see "Information on the Group – Native title and land claims" in Part I. The Company is aware that a number of land claims have been lodged in relation to the surface rights of the Group's various South African properties, but has limited information about these claims. Accordingly, the Company can give no assurance that these land claims, or any other land claims of which it is not aware, will not have an adverse effect on the Group's rights to the properties that are subject to the land claims.

US steel import tariff

On 5 March 2002, President George W. Bush announced plans to impose tariffs of up to 30% on all steel imported into the United States (other than steel imported from Canada, Mexico, Israel and Jordan). This tariff took effect from 20 March 2002 and shall continue, unless modified, until 21 March 2006. It is not yet clear how the introduction of this tariff will impact on supply of and demand for commodities used in the production of steel (which include coal, zinc, chrome and vanadium) in the United States and elsewhere or what impact the tariff will have on coal, zinc, chrome and vanadium prices. There can be no assurance that the imposition of this tariff or any other tariffs which may be introduced in the future will not adversely affect the results of operations or financial condition of the Group.

Considerations relating to the Group's business

Operational considerations

The success of each of the Group's businesses is affected by a number of factors which are, to a large extent, outside the Group's control. Such factors include the availability of raw materials, water and power. In addition, the Group's businesses are subject to numerous other operating risks which include: unexpected geological features or unexpected seismic activity; climatic conditions such as flooding or drought; interruptions to power supplies; industrial action or disputes; environmental hazards; and technical failures, fires, explosions and other

accidents at a mine, processing plant, cargo terminal or related facilities. These risks and hazards could result in damage to, or destruction of, properties or production facilities, may reduce or cause production to cease at those properties or production facilities, may result in personal injury, environmental damage, business interruption and possible legal liability and may result in actual production differing from estimates of production, including those contained in this document whether expressly or by implication. While the Group has insurance covering various types of business interruptions in respect of substantially all of the Group's operations, such insurance may not fully cover the consequences of such business interruptions and, in particular, may not cover interruptions arising from all types of equipment failure or labour dispute. There can be no assurance that operating risks and the costs associated with them will not adversely affect the results of operations or financial condition of the Group.

Metal processing plants are especially vulnerable to interruptions, particularly where events cause a stoppage which necessitates a shutdown in operations. Stoppages in smelting, even if lasting only a few hours, can cause the contents of furnaces to solidify, resulting in a plant closure for a significant period and necessitating expensive repairs, any of which could adversely affect the results of operations or financial condition of the Group.

The Group depends upon seaborne freight, rail, trucking, overland conveyor and other systems to deliver its commodities to market. Disruption of these transportation services because of weather-related problems, key equipment failures, strikes, lock-outs or other events could temporarily impair the Group's ability to supply its commodities to its customers and thus could adversely affect the Group's results of operations or financial condition. In addition, the Group's ability to increase its export sales may be restricted by available port capacity which may adversely affect the Group's ability to increase turnover.

Although the Group maintains liability insurance, its insurance does not cover every potential risk associated with its operations and meaningful coverage at reasonable rates is not obtainable for certain types of environmental hazards. The occurrence of a significant adverse event, the risks of which are not fully covered by insurance, could have a material adverse effect on the results of operations or financial condition of the Group. See "Information on the Group – Operational hazards and insurance" in Part I.

Tax

Although the Company is incorporated in England and Wales, the Directors currently intend to conduct the affairs of the Company in a manner such that it is regarded as resident in Switzerland, and not in the United Kingdom, for Swiss and UK tax purposes and for the purposes of the United Kingdom-Switzerland double tax treaty. This means, broadly, that the Company's profits, income and gains will be subject to the Swiss tax regime and not, save in the case of UK source income, to the UK tax regime. Any dividends paid by the Company will be regarded as Swiss dividends rather than UK dividends. For further information see "Additional information – UK Taxation", "Additional information – Swiss Taxation" and "Additional information – US Taxation" in paragraphs 15,16 and 17 of Part VIII.

It is possible that in the future, whether as a result of a change of law or the practice of any relevant tax authority or the renegotiation of the United Kingdom-Switzerland double tax treaty, or as a result of any change in the management or the conduct of the Company's affairs, the Company could become, or be regarded as having been, resident in the United Kingdom, therefore becoming subject to the UK tax regime, which could adversely affect the results of operations or financial condition of the Group.

A number of arrangements entered into by companies in the Group have been structured in a tax efficient manner. If any of these arrangements are successfully challenged by the relevant tax authorities, Group companies may incur additional tax liabilities which could adversely affect the results of operations or financial condition of the Group.

Currency fluctuations

The Group produces and sells commodities that are typically priced in US dollars, while a large portion of the costs of the Group's Coal, Zinc and Ferroalloys Businesses and forestry operation are incurred in local currencies, in particular the Australian dollar and the Rand. Accordingly, if the Australian dollar or the Rand were to strengthen against the US dollar this could have a detrimental effect on the Group's results of operations and financial condition. See "Operating and financial review" in Part V.

The Group's operations are conducted by members of the Group in many countries and the results of operations and the financial condition of individual Group companies are reported in the relevant local currencies which, in most cases, is not the US dollar. These results are then translated into US dollars at the applicable foreign currency exchange rates for inclusion in the Group's consolidated financial statements. The exchange rates

between relevant local currencies and the US dollar have historically fluctuated, and the translation effect of such fluctuations may have a material adverse effect on both Group members' individual, and the Group's consolidated, results of operations or financial condition.

Borrowings

Certain members of the Group may borrow up to US$1.4 billion for certain purposes including to fund in part the Acquisitions. See "Additional information – Agreements relating to the Acquisitions and the Merger – Syndicated Loan Facility Agreement" in paragraph 10.14 of Part VIII. The Company will have to allocate significant proportions of cash flow to meet its obligations under the loan facility, depending on the level of borrowings, prevailing interest rates and, to a lesser extent, exchange rate fluctuations.

Integration of existing operations and acquisitions

A substantial portion of the Group's growth in turnover and earnings has historically been generated from acquisitions and subsequent improvements in the performance of the businesses acquired. The Company expects to continue a strategy of identifying and acquiring businesses with a view to expanding its operating businesses or diversifying into other natural resources. Within the past 18 months the Group has carried out a number of relatively large acquisitions, including the acquisition of the Coal Assets, which will occur simultaneously with the Merger becoming effective and Admission, and the acquisition of the Zinc Business. The Company believes that acquisitions will continue to be an important part of its business strategy. The Group also generates a portion of its turnover and earnings from interests it acquires in joint ventures.

There can be no assurance that the Company will continue to identify suitable acquisitions or joint venture opportunities, obtain the financing necessary to complete and support such acquisitions or its investment in such joint ventures or acquire businesses on satisfactory terms, or that any business acquired will prove to be profitable. In addition, acquisitions and investments in joint ventures involve a number of risks, including possible adverse effects on the Group's operating results, diversion of management's attention, failure to retain key personnel, risks associated with unanticipated events or liabilities and difficulties in the assimilation of the operations, technologies, systems, services and products of the acquired companies or the joint ventures. Any failure to achieve successful integration of such acquisitions or joint ventures could have a material adverse effect upon the results of operations or financial condition of the Group. Moreover, the Group has no operating history as a consolidated entity and has a devolved management structure, and its failure to integrate the Coal Business successfully could have a material adverse effect on the Group's results of operations or financial condition.

Labour

The majority of the Group's workforce is unionised. The Company believes that all of the Group's operations have, in general, good relations with their employees and unions, but the Group's operations in South Africa and Australia have from time to time experienced limited work stoppages and other forms of industrial action in recent years. See "Information on the Group – Labour and employee relations" in Part I. There can be no assurance that the Group's operations will not be affected by such problems in the future. In addition, the Group has been subject to union demands for pay rises and increased benefits. There can be no assurance that work stoppages or other labour-related developments (including the introduction of new labour regulations in countries where the Group operates) will not adversely affect the results of operations or financial condition of the Group.

There is a serious problem with HIV/AIDS infection of the Group's South African workforce, as there is in South Africa generally. The World Health Organisation estimates that approximately 20% of the South African population is living with HIV/AIDS. The HIV/AIDS infection rate of the Group's South African workforce is expected to increase significantly over the next decade. The costs and lost workers' time associated with HIV/AIDS may adversely affect the Group's South African results of operations or financial condition. See "Information on the Group – Safety and health" in Part I.

Political risk

The Group has significant operations in South Africa. As a result, there are important political and economic risks relating to South Africa which could affect an investment in the Company. Large parts of the population do not have access to adequate education, healthcare, housing and other services, including water and electricity. Furthermore, in recent years, South Africa has experienced high levels of crime and unemployment. These problems have impeded fixed inward investment into South Africa and prompted the emigration of skilled workers.

Although the South African government has indicated on numerous occasions that it is committed to creating a stable free market democracy, including the phasing out of exchange controls, it is difficult to predict the future political, social and economic direction of South Africa or how the government will try to address South Africa's problems. It is also difficult to predict the effect on the Group's business of these problems or of the government's efforts to solve them.

Further, there has been regional political and economic instability in the countries surrounding South Africa. As discussed above, any resulting political or economic instability in South Africa could have a negative impact on the Group's ability to manage and operate its South African operations and therefore on its results of operations or financial condition.

Key employees

The management of the Group's operations depends on a relatively small number of key employees. The loss of the services of certain key employees, particularly to competitors, could have a material adverse effect on the results of operations or financial condition of the Group. In addition, as the Group's business develops and expands, the Company believes that the Group's future success will depend on its ability to attract and retain highly skilled and qualified personnel, which is not guaranteed.

Joint ventures

Members of the Group hold, and expect to hold in the future, undivided interests in joint ventures. Joint ventures may involve special risks associated with the possibility that the joint venture partners may (i) have economic or business interests or goals that are inconsistent with those of the Group; (ii) take action contrary to the Group's policies or objectives with respect to its investments, for instance by veto of proposals in respect of the joint venture operations; (iii) be unable or unwilling to fulfil their obligations under the joint venture or other agreements; or (iv) experience financial or other difficulties. Any of the foregoing may have a material adverse effect on the results of operations or financial condition of the Group. In addition, the termination of certain of these joint venture agreements, if not replaced on similar terms, could have a material adverse effect on the results of operations or financial condition of the Group.

Several of the joint venture agreements that members of the Enex Group are a party to contain provisions that give the joint venture partners certain rights in the event of a change of control of the Enex Group. For information relating to consents required from joint venture partners in connection with the Acquisitions, see "Information on the Group – The acquisition of the Coal Assets and the Merger – Joint venture consents" in Part I.

Holding company structure; restrictions on dividends; dependence on subsidiaries

The Company's results of operations and financial condition are entirely dependent on the trading performance of members of the Group. The Company's ability to pay dividends will depend upon the level of distributions, if any, received from the Company's operating subsidiaries and interests, any amounts received on asset disposals and the level of cash balances. Certain of the Company's operating subsidiaries and interests may, from time to time, be subject to restrictions on their ability to make distributions to the Company including as a result of restrictive covenants contained in loan agreements, foreign exchange limitations and other regulatory restrictions and agreements with the other shareholders of such subsidiaries or associated companies. There can be no assurance that such restrictions will not have a material adverse effect on the Group's results of operations or financial condition.

Exchange controls

South African exchange control regulations provide for a common monetary area consisting of South Africa, Lesotho, Namibia and Swaziland (the "CMA"). Transactions between CMA residents and non-CMA residents are subject to South African exchange control regulations. The present exchange control system in South Africa is used principally to control capital movements. South African residents, including companies, are generally not permitted (other than subject to certain monetary limits and within certain parameters), without the approval of the exchange control authorities, to export capital from South Africa or to hold foreign currency or foreign investments, as restrictions are imposed on foreign investments by South African residents. It is impossible to predict whether any further modifications may be made by the South African government. There can be no assurance that the expansion of existing, or imposition of new, exchange controls would not adversely affect the Group's results of operations or financial condition.

Market considerations

Shares available for future sale

The Group is unable to predict whether substantial amounts of Ordinary Shares will be sold in the open market following the termination of the restrictions under the lock-up arrangements described in "The Global Offer and related matters – Lock-up arrangements" in Part III. Any sales of substantial amounts of Ordinary Shares in the public market, or the perception that such sales might occur, could materially and adversely affect the market price of the Ordinary Shares.

Absence of prior public trading

Prior to the Global Offer, there has been no public market for the Ordinary Shares. The Offer Price will be agreed between JPMorgan, in consultation with the other Joint Bookrunners, and the Company and may not be indicative of the market price for the Ordinary Shares following Admission and Swiss Admission. Although the Company has applied for the Ordinary Shares to be admitted to trading on the London Stock Exchange and SWX and it is expected that both applications will be approved, there can be no assurance that an active trading market for the Ordinary Shares will develop or, if developed, that it will be maintained following the closing of the Global Offer. If an active trading market is not developed or maintained, the liquidity and market price of the Ordinary Shares could be adversely affected.

Possible volatility of the price of the Ordinary Shares

Following Admission and Swiss Admission, the market price of the Ordinary Shares could be subject to significant fluctuations due to a change in sentiment in the market regarding the Ordinary Shares (or securities similar to them) or in response to various facts and events, including any regulatory changes affecting the Group's operations, variations in the Group's operating results and business developments of the Group or its competitors. Stock markets have from time to time experienced significant price and volume fluctuations that have affected the market prices for securities and which may be unrelated to the Group's operating performance or prospects. Furthermore, the Group's operating results and prospects from time to time may be below the expectations of market analysts and investors. Any of these events could result in a decline in the market price of the Ordinary Shares.

Possible unavailability of pre-emptive rights for US and other non-UK holders of Ordinary Shares

In the case of an increase of the share capital of the Company for cash, the existing Shareholders are generally entitled to pre-emption rights pursuant to the Companies Act unless such rights are waived by a special resolution of the Shareholders at a general meeting or in certain circumstances stated in the Articles. To the extent that pre-emptive rights are granted, US and other non-UK holders of the Ordinary Shares may not be able to exercise pre-emptive rights for their Ordinary Shares unless the Company decides to comply with applicable local laws and regulations and, in the case of US holders, unless a registration statement under the Securities Act is effective with respect to those rights, or an exemption from the registration requirement thereunder is available. The Company intends to evaluate at the time of any rights offering the costs and potential liabilities associated with any such compliance or registration statement. At such time, the Company also intends to evaluate the benefits to it of enabling the exercise by US and other non-UK holders of the Ordinary Shares of the pre-emptive rights for their Ordinary Shares and any other factors the Company considers appropriate at the time. On the basis of this evaluation, the Company will then to make a decision as to how to proceed and whether to file such a registration statement or otherwise or any other steps necessary to extend the rights offering into the other jurisdictions (including complying with local law requirements in other jurisdictions). No assurance can be given that any steps will be taken in any jurisdiction or that any registration statement will be filed to enable the exercise of such holders' pre-emptive rights.

Major shareholder

Immediately following the completion of the Merger and Admission, Glencore International will hold 40% of the issued outstanding Ordinary Shares (even if the Manager's Option is exercised). As a result of this shareholding Glencore International will have a significant influence on all matters requiring Shareholder approval, including the approval of significant corporate transactions. This concentration of ownership may have the effect of delaying, preventing or deterring a change in control of the Group, could deprive Shareholders of an opportunity to receive a premium for their Ordinary Shares as part of a sale of the Group and might affect the market price of the Ordinary Shares. Further, although Glencore International has agreed not to dispose of any of its holding of Ordinary Shares for a period of six months from the date of this document (see "Additional information – Underwriting arrangements – Lock-up Agreement" in paragraph 9 of Part VIII) Glencore International may

subsequently sell all or part of its holding of Ordinary Shares. Any such sale may adversely affect the market price of the Ordinary Shares.

Takeovers

It is currently understood that neither the City Code on Takeovers and Mergers nor the Swiss Stock Exchange and Securities Trading Act will apply to the Company and therefore, a takeover of the Company will be unregulated by each of the UK and Swiss takeover authorities. The Articles contain certain takeover protections designed to ensure that no person acquires 30% or more of the Company's voting rights or, if they already hold more than 30% (but less than 50%) of the Company's voting rights, acquires any additional voting rights, without making a cash offer to all Shareholders, although these will not provide the full protections afforded by the City Code (see "Information on the Group - Takeover regulation" in Part I).

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Operating and financial review

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The following discussion of the Group's financial condition and results of operations should be read in conjunction with "Financial information" in Part VI and with the information relating to the businesses of the Group included elsewhere in this document. The discussion includes forward-looking statements which involve risks and uncertainties. See "Presentation of information – Forward-looking statements". The actual results of the Group could differ materially from those contained in any forward-looking statements. Factors that could cause or contribute to such differences include those discussed below and elsewhere in this document, particularly in "Investment considerations" in Part IV. Investors should read the whole of this document and not just rely upon summarised information.

This commentary discusses and is based on the following financial information:

- the financial information of the Xstrata AG Group for the three years ended 31 December 1999, 2000 and 2001 contained in Part VI;
- the financial information of the Enex Group for the three years ended 31 December 1999, 2000 and 2001 contained in Part VI; and
- the financial information of the Duiker Group for the year ended 30 September 1999, the 15 months ended 31 December 2000 and the year ended 31 December 2001 contained in Part VI. For additional information on the accounting periods see "Factors affecting comparability – Change in the financial year of the Duiker Group."

Pursuant to the Merger, the assets and liabilities of Xstrata AG will be transferred to Xstrata. In the Acquisitions, Xstrata and certain of its subsidiaries have agreed to acquire the Enex Group and the Duiker Group. The Acquisitions and the Merger will occur simultaneously and pursuant thereto, Xstrata will become the ultimate holding company of the Group. For a detailed discussion of the Acquisitions and the Merger, see "Information on the Group – The acquisition of the Coal Assets and the Merger" in Part I. As these transactions have not yet been completed, there is no historical consolidated audited financial information relating to the Group to be formed upon the completion of the Acquisitions and the Merger.

Financial information for Xstrata is not discussed in this commentary as it will not have any significant assets or liabilities prior to completion of the Acquisitions and the Merger.

Introduction

The Group comprises three principal businesses:

- **Coal.** The Coal Business is the Group's largest business in terms of both turnover and operating profit. The Coal Business consists of the Enex Group and the Duiker Group.
- **Zinc.** The Zinc Business is the Group's second largest business in terms of both turnover and operating profit. The Zinc Business consists of a zinc mining and smelting operation in Spain (Asturiana) in which the Xstrata AG Group has held an interest in excess of 93% since 3 May 2001.
- **Ferroalloys.** The Ferroalloys Business is the Group's third largest business in terms of turnover and operating profit and is comprised of the chrome and vanadium operations.

The Group's additional activities consist of a magnesium re-cycling operation in North America and a forestry plantation in Chile.

Factors affecting the business

Key factors affecting the results of operations of the Group are discussed below:

Market conditions

Commodity prices are significantly affected by changes in global economic conditions and related industry cycles. Prices of commodity products, such as coal, zinc and ferroalloys, the primary products of the Xstrata AG, Enex and Duiker Groups, can vary significantly when supply and demand fluctuate. While the producers are unable to influence commodities prices directly, events such as the introduction of commodity production capacity, temporary price reductions or other attempts to capture market share by individual producers may have an effect on market prices. Also, the prices realised by producers on sales of their products can, to some extent, be affected by contractual arrangements, production levels and hedging strategies. Price variations and market cycles have historically influenced the financial performance of the Xstrata AG, Enex and Duiker Groups, and are expected to continue to influence the financial performance of the Group after the Acquisitions and the Merger.

The following table sets out indicative average market prices in US dollars for coal, zinc, ferrochrome and vanadium for the periods indicated:

	1999		2000		2001	
	1 January - 30 June	1 July - 31 December	1 January - 30 June	1 July - 31 December	1 January - 30 June	1 July - 31 December
Coal[1]	n/a	n/a	21.98	26.37	32.41	29.91
Zinc[2]	1,005.71	1,146.78	1,133.11	1,123.66	976.61	795.54
Ferrochrome[3]	0.35	0.38	0.42	0.44	0.41	0.33
Vanadium[4]	2.31	1.73	1.88	1.57	1.41	1.34

(1) Coal prices are McCloskey spot price estimates for FOB Australian export thermal coal expressed in US dollars per tonne.

(2) Zinc prices refer to LME traded special high grade and are expressed in US dollars per tonne.

(3) Ferrochrome (52% Cr Lumpy) prices are quoted from the Metal Bulletin and are expressed in US dollars per pound.

(4) Vanadium (minimum 98% V_2O_5) prices are quoted from the Metal Bulletin and are expressed in US dollars per pound.

For a detailed discussion of recent market conditions and market outlook for each of the coal, zinc and ferroalloys industries, see "Information on the Group – Coal Business – Industry overview", "– Zinc Business – Industry overview", "– Ferroalloys Business – Chrome operations – Industry overview" and "– Ferroalloys Business – Vanadium operations – Industry overview", respectively, in Part I.

Exchange rates

The Xstrata AG, Enex and Duiker Groups produce and sell commodities that are typically priced in US dollars. However, the majority of the direct costs of the Xstrata AG, Enex and Duiker Groups are incurred in the currencies of South Africa, Australia and Spain, the countries in which the groups' mining and production facilities are located. Accordingly, the Xstrata AG, Enex and Duiker Groups may be significantly affected by exchange rate fluctuations between the US dollar and the Rand, the Australian dollar and the Euro. See "Investment considerations – Currency fluctuations" in Part IV.

During recent years, the Rand has weakened considerably against the US dollar. This has reduced overall production costs, in US dollar terms, of the coal operations of the Duiker Group and the Ferroalloys Business of the Xstrata AG Group which are primarily located in South Africa. The effect of the depreciation of the Rand against the US dollar has been partly offset by an increase in inflation. The US dollar has also been strong against the Euro and the Australian dollar, the two other principal currencies in which the Group incurs its production costs. If any of these currencies appreciates in value against the US dollar, the US dollar equivalent of such costs will increase. For historical exchange rates of the Australian dollar and the Rand against the US dollar, see "Presentation of information – Currencies".

Production costs and efficiency

As the Group, in common with its competitors, is unable to influence commodity prices directly, its competitiveness and long-term profitability are, to a significant degree, dependent upon its ability to reduce costs and maintain low-cost, efficient operations. Costs associated with mining and metal production can be broadly categorised into labour costs and other on-site expenses, including power and equipment costs, port handling costs and freight costs.

Management believes that the Group has a portfolio of cost competitive coal mines and is among the lowest cost producers of zinc and chrome with operations in South Africa, Australia and Spain. South African coal producers are some of the lowest cost coal producers, having advantages in shallow mining depths, high quality reserves, low transport costs (which have compensated for the relatively long distance to port) and low cost labour and power. Australian coal producers benefit from their large high quality reserves located relatively close to export ports. In its Zinc Business, the Xstrata AG Group has focused on improving efficiency in the recovery of zinc from zinc concentrate. Management also believes that the scale of operations and ease of access to export ports have contributed to the efficiency and profitability of the Zinc Business. In its chrome operations, the Xstrata AG Group has, according to its management, been able to maintain its position among the lowest cost producers due to shallow mining depths, efficient work practices and processing technology and access to low cost chrome bearing platinum tailings. Management also believes that the Group's chrome operations have benefited from low transport costs (which have compensated for the relatively long distance to port) and low cost labour and power in South Africa.

Unit production costs are also significantly affected by production volumes, and therefore, the Group's production levels are a key factor in determining its overall cost competitiveness.

Factors affecting comparability

Key factors affecting comparability of the results of operations of the Xstrata AG, Enex and Duiker Groups include:

Acquisitions and disposals

The results of operations of each of the Xstrata AG Group, the Enex Group and the Duiker Group have been significantly affected by acquisitions and disposals during the period under review. These acquisitions and disposals affect the comparability of the financial information of each group on a period-to-period basis.

The results of operations of acquired businesses have been consolidated into the results of operations of each of the Xstrata AG, Enex and Duiker Groups from the effective date of acquisition. Results attributable to acquired operations have been presented in the "Acquisitions" line item only for the year in which the acquisition took place. Therefore, comparisons between the year in which the acquisition was made and following years cannot be made without giving effect to the acquisitions.

The results of operations of disposed businesses of each of the Xstrata AG and Duiker Groups have been presented in the "Discontinued operations" line item for the three-year period under review, and the results of operations of each such disposed business have been included to the effective date of its disposal.

The following discussion sets out the principal acquisitions and disposals of the Xstrata AG, Enex and Duiker Groups during the three-year period ended 31 December 2001:

Xstrata AG Group

- Effective 1 January 2000, the Xstrata AG Group sold its wholly owned oil and gas subsidiary Südelektra Argentina S.A. to Perez Companc S.A. During the year ended 31 December 1999, Südelektra Argentina generated turnover of US$39.6 million and operating profit of US$8.1 million. The Xstrata AG Group realised a profit of US$57.7 million on the disposal.
- On 31 March 2000, the Xstrata AG Group sold its aluminium business to Berkeley Aluminium, Inc. Between 1 January and 31 March 2000, this business generated turnover of US$18.1 million and an operating profit of US$1.0 million. During the year ended 31 December 1999, the Xstrata AG Group's aluminium business generated turnover of US$65.9 million and an operating loss of US$3.2 million. The Xstrata AG Group realised a profit of US$0.1 million on the disposal.
- On 28 September 2000, the Xstrata AG Group acquired the remaining 40% of the Windimurra Vanadium project from its joint venture partner. Prior to 28 September 2000, Windimurra Vanadium had been accounted for in the Xstrata AG Group's results of operations as a joint venture.
- In 2001, the Xstrata AG Group divested Xstrata Coal Pty Ltd (a company operating the United coal mine located in Australia) and Winarch Pty Ltd to the Enex Group. The disposal was made at the net book value of the Xstrata AG Group's initial investment. During the year ended 31 December 2000, turnover and operating loss attributable to the United coal mine were US$35.4 million and US$3.6 million, respectively. These assets will be re-acquired as part of the Acquisitions together with other Australian and South African coal operations.
- On 3 May 2001, the Xstrata AG Group acquired 95.5% of the issued share capital of Asturiana de Zinc, S.A. pursuant to a public takeover offer. Following the offer, Asturiana made a delisting offer to the remaining public shareholders of Asturiana pursuant to which, and as a result of other market purchases made by the Xstrata AG Group, the Xstrata AG Group increased its shareholding in Asturiana to 98.36%. Following the delisting offer, Asturiana de Zinc, S.A. was merged into Xstrata Spain, S.L. Due to the way in which the merger was effected, the Xstrata AG Group's shareholding in Asturiana has been reduced to 93.18%. Between 3 May and 31 December 2001, business attributable to Asturiana generated turnover of US$266.6 million and operating profit of US$44.8 million.
- Effective 1 July 2001, the Xstrata AG Group sold its forestry trading operation to the operating management. The Xstrata AG Group retained ownership of a plantation, the management of which was contracted to the former management team. Between 1 January and 30 June 2001, the forestry trading operation generated turnover of US$23.8 million and operating profit of US$1.6 million. A loss of US$1.8 million was generated on the disposal.

Enex Group

- Effective 30 June 1999, the Enex Group acquired a 67.5% interest in the Liddell/Foybrook coal mine in Australia. Between 30 June and 31 December 1999, this interest generated turnover of US$19.9 million and operating profit of US$2.8 million.
- On 3 July 1999, the Enex Group acquired Oceanic Coal Australia Limited. Between 3 July and 31 December 1999, this interest generated turnover of US$37.8 million and operating profit of US$4.8 million.
- In two stages in March 2000 and March 2001, the Enex Group acquired an aggregate 66.5% interest in Oakbridge Pty Ltd, a company operating the Bulga, South Bulga and Baal Bone coal mines in Australia. From 31 March 2000 to 31 December 2000, Oakbridge Pty Ltd was accounted for as an associate. Following its consolidation on 1 April 2001, the Enex Group included turnover and operating profit of US$229.7 million and US$52.4 million, respectively, in its results of operations from Oakbridge Pty Ltd.
- On 15 December 2000, the Enex Group acquired from Glencore International an 81% interest in Cumnock Coal Limited, a company operating a coal mine in Australia.
- Effective 31 January 2001, the Enex Group acquired a 90% interest in the Ulan coal mine in Australia. Between 31 January and 31 December 2001, this interest generated turnover of US$128.8 million and operating profit of US$38.9 million.
- On 31 July 2001, the Enex Group acquired a 95% interest in the United coal mine located in the Hunter Valley in Australia from the Xstrata AG Group. Between 31 July 2001 and 31 December 2001, this interest generated turnover of US$12.6 million and operating profit of US$2.5 million.

Duiker Group

- Effective 1 November 1999, the Duiker Group sold its anthracite business in KwaZulu-Natal, South Africa to Capital Coal (Pty) Ltd. Between 1 October 1999 and 1 November 1999, this interest generated turnover of US$5.7 million and operating profit of US$0.7 million. The Duiker Group realised a profit of US$1.1 million on the disposal.
- On 29 March 2000, the Duiker Group acquired LSA Minerals Limited. Between 29 March 2000 and 31 December 2000, the Duiker Group derived operating profit of US$0.6 million from LSA Minerals Limited.
- Effective 1 September 2000, the Duiker Group sold its entire holding in Bosveld Mines (Proprietary) Limited in South Africa, constituting its gold business, to Matt Trading (Proprietary) Limited. The Duiker Group realised a profit of US$4.8 million on the disposal.

Change in the financial year of the Duiker Group

Prior to September 2000, the Duiker Group prepared its annual accounts using a financial year ending on 30 September. On 30 September 2000, the Duiker Group changed its financial year to the calendar year by extending its financial period for 2000 to 31 December 2000. This resulted in a 15 month financial period from 1 October 1999 to 31 December 2000. Therefore, the Duiker Group's financial information for the 15 month financial period is not comparable to its financial information for years 1999 and 2001.

Results of operations

Xstrata AG Group

The following table sets out selected financial information of the Xstrata AG Group for the periods indicated which has been extracted, without material adjustment, from the Accountants' Report contained in Part VI:

	Year ended 31 December (US$ million) [1]		
	1999	2000	2001
Turnover			
Chrome	359.0	419.3	**257.7**
Vanadium	101.5	68.5	**63.5**
Zinc	–	–	**266.6**
Other	59.6	56.7	**25.8**
Discontinued operations [2]	141.9	53.4	**–**
Turnover, total	662.0	597.9	**613.6**
Net operating costs [3]	(566.8)	(467.3)	**(521.2)**
Operating profit before common costs			
Chrome	50.9	114.9	**59.3**
Vanadium	45.3	20.6	**3.1**
Zinc	–	–	**44.8**
Other	4.2	2.4	**(4.4)**
Discontinued operations [2]	1.2	(2.6)	**–**
Profit before common costs, total	101.6	135.3	**102.8**
Common costs	(6.4)	(4.7)	**(10.3)**
Profit/(loss) on disposal of tangible fixed assets	(3.5)	–	**0.4**
Impairment of vanadium assets	–	–	**(45.5)**
Profit/(loss) on sale of operations	–	57.8	**(1.9)**
Profit on ordinary activities before interest and taxation	91.7	188.4	**45.5**
Net interest	(14.6)	(11.5)	**(21.6)**
Profit on ordinary activities before tax	77.1	176.9	**23.9**
Tax on profit on ordinary activities	6.6	(21.6)	**(10.6)**
Minority interest	0.3	–	**(2.0)**
Profit for the financial year	84.0	155.3	**11.3**

(1) Columns may not add due to rounding.

(2) Discontinued operations include the Xstrata AG Group's coal, aluminium and oil and gas operations. See "– Factors affecting comparability – Xstrata AG Group" above.

(3) Net operating costs are shown inclusive of common costs.

The following table sets forth certain income and expense items of the Xstrata AG Group as a percentage of its turnover for the periods indicated:

	Year ended 31 December		
	1999	2000	2001
Net operating costs [1]	85.6%	78.2%	**84.9%**
Profit before common costs, total	15.3%	22.6%	**16.8%**
Chrome	7.7%	19.2%	**9.7%**
Vanadium	6.8%	3.4%	**0.5%**
Zinc	–	–	**7.3%**
Other	0.6%	0.4%	**(0.7)%**
Discontinued operations [2]	0.2%	(0.4)%	**–**
Profit for the financial year	12.7%	26.0%	**1.8%**

(1) Net operating costs are shown inclusive of common costs.

(2) Discontinued operations include the Xstrata AG Group's coal, aluminium and oil and gas operations. See "Factors affecting comparability – Xstrata AG Group" above.

Profit and loss account items

Turnover

The primary sources of revenue and the nature of associated costs for the Xstrata AG Group and its businesses are set out under "Information on the Group – Zinc Business – Sales and marketing", "– Ferroalloys Business – Chrome operations – Description of the chrome operations" and "– Vanadium operations – Description of the vanadium operations" in Part I. The relationship the Xstrata AG Group has with Glencore International is important to the marketing of its products. See "Relationship with Glencore – Commercial relationship – Ferroalloys Business" in Part II.

Zinc. Approximately 50% to 65% of Xstrata AG's zinc sales are exported from Spain to other European countries. The majority of customer relationships are governed by long-term supply contracts. Glencore is the Xstrata AG Group's largest zinc customer.

Chrome. The majority of the Xstrata AG Group's chrome sales are exported. Its major customers are stainless steel manufacturers based in Europe and the Pacific Rim. In addition, North America has historically been an important market to the Xstrata AG Group's chrome.

Vanadium. Vanadium pentoxide is produced in South Africa and Western Australia. During 1999 and 2000 the majority of sales of vanadium pentoxide were made to Glencore through an offtake agreement that specifies prices and volumes. In 2001 sales under the offtake agreement accounted for approximately 44% of the Xstrata AG Group's sales of vanadium pentoxide. Ferrovanadium is produced by the Xstrata AG Group in South Africa. Sales of ferrovanadium are exported, with Europe as the Xstrata AG Group's largest export market.

Net operating costs

Net operating costs comprise cost of sales, distribution and marketing costs, administrative expenses and other income and expense items. Raw material costs, mining costs (including the costs of contractors and labour) and power costs are the most significant components of cost of sales, whereas rail transport and freight costs represent the majority of distribution costs. A significant portion of these costs is incurred in local currency.

Common costs

Common costs are predominantly administration expenses and include the remuneration of the Xstrata AG Group's directors and other senior management.

Other pre-tax items

Other items include gains on the disposal of non-core operations, impairment losses and interest.

Year ended 31 December 2001 compared with year ended 31 December 2000

Turnover

Group. The Xstrata AG Group's turnover was US$613.6 million in the year ended 31 December 2001, an increase of US$15.7 million or 2.6% from US$597.9 million in the year ended 31 December 2000. This result reflected the inclusion of US$266.6 million turnover of the zinc business of Asturiana into the consolidated results of the Xstrata AG Group since its acquisition on 3 May 2001. The increase was largely offset by a US$197.5 million decline in the turnover from the continuing operations from US$544.5 million in the year ended 31 December 2000 to US$347.0 million in the year ended 31 December 2001 due to the combined impact of a significant reduction in chrome production and sales volumes reflecting prevailing unfavourable market conditions and an accompanying fall in realised commodity prices. In addition, the Xstrata AG Group sold its forestry trading operation and its coal operation in 2001 and its aluminium operation in 2000.

Zinc. For the period from 3 May 2001 to 31 December 2001, turnover attributable to the Zinc Business was US$266.6 million and operating profit was US$44.8 million. During 2001, zinc metal prices declined. The effect of lower zinc metal prices was offset in part by increases in zinc metal production and sales volumes during the year following the expansion of the San Juan de Nieva smelting plant in July 2001.

Chrome. Turnover of the chrome operations was US$257.7 million in the year ended 31 December 2001, a decrease of US$161.6 million or 38.5% from US$419.3 million in the year ended 31 December 2000. The decrease was primarily due to significantly lower sales volumes, particularly in the United States, reflecting cutbacks in global stainless steel production during the market downturn and lower achieved average US dollar sales prices during the year as compared to those in 2000. The Xstrata AG Group suspended production at four of its furnaces in 2001 and two in the second half of 2000 in light of the oversupply of ferrochrome.

Vanadium. Turnover of the vanadium operations was US$63.5 million in the year ended 31 December 2001, a decrease of US$5.0 million or 7.3% from US$68.5 million in the year ended 31 December 2000. The decrease resulted primarily from lower achieved sales prices for both vanadium products despite an increase in sales volumes for higher margin ferrovanadium. Sales volumes for vanadium pentoxide decreased during the period. The fall in vanadium pentoxide sales volumes was largely attributable to reduced volumes sold to Glencore under the off-take agreement.

Other. Turnover from the Xstrata AG Group's additional activities decreased from US$56.7 million in the year ended 31 December 2000 to US$25.8 million in the year ended 31 December 2001 due to the sale of Xstrata AG Group's forestry trading business in July 2001. The turnover attributable to these operations included in the Group's results was US$25.8 million in 2001 and US$53.4 million in 2000. Because the Xstrata AG Group retained an interest in a forestry plantation in Chile, the results of the forestry business have been included in turnover from continuing operations. The magnesium business made its initial sales at the end of 2001.

Discontinued operations. The Xstrata AG Group disposed of its coal operations in 2001 and its oil and gas and aluminium operations in 2000. Turnover attributable to these businesses was US$53.4 million in 2000. In 2001, the Xstrata AG Group did not account for any operations as discontinued.

Net operating costs

The Xstrata AG Group's net operating costs increased by US$53.9 million or 11.5%, from US$467.3 million in 2000 to US$521.2 million in 2001. The increase was primarily attributable to the consolidation of the acquired zinc operations from 3 May 2001, which was largely offset by a significant reduction in ferrochrome production volumes, the disposal of coal, forestry trading and aluminium operations and the depreciation of the Rand against the US dollar.

Operating profit before common costs

Group. The Xstrata AG Group's operating profit before common costs decreased by US$32.5 million or 24.0% from US$135.3 million in the year ended 31 December 2000 to US$102.8 million in the year ended 31 December 2001. The overall decrease was attributable to unfavourable market conditions affecting the ferrochrome and vanadium operations. The effect of the market conditions was partly offset by the contribution of the operating profit of US$44.8 million generated by the Zinc Business since its acquisition on 3 May 2001. The Xstrata AG Group's operating profit before common costs from its continuing operations decreased by US$79.9 million, from US$137.9 million in 2000 to US$58.0 million in 2001. The Xstrata AG Group's operating profit for the year ended 31 December 2001 was US$92.4 million, a decrease of US$38.2 million or 29.2% compared with operating profit of US$130.6 million for the year ended 31 December 2000.

Chrome. Operating profit before common costs of the chrome operations decreased by US$55.6 million or 48.4% from US$114.9 million in the year ended 31 December 2000 to US$59.3 million in the year ended 31 December 2001 due to the reasons discussed above in "– Turnover – Chrome", "– Net operating costs" and "– Operating profit before common costs – Group".

Vanadium. Operating profit before common costs of the vanadium operations was US$3.1 million in the year ended 31 December 2001, a decrease of US$17.5 million from US$20.6 million in the year ended 31 December 2000. The decrease was primarily attributable to the reasons discussed above in "– Turnover - Vanadium", "– Net operating costs" and "– Operating profit before common costs - Group".

Other. Operating profit before common costs of the Xstrata AG Group's additional activities decreased from a profit of approximately US$2.4 million in the year ended 31 December 2000 to a loss of US$4.5 million in the year ended 31 December 2001 mainly as a result of US$5.0 million of start-up costs incurred in connection with the construction of a magnesium re-cycling facility in the United States.

Discontinued operations. Operating loss before common costs attributable to discontinued operations was US$2.6 million in 2000. In 2001, the Xstrata AG Group did not account for any operations as discontinued.

Other pre-tax items

The Xstrata AG Group's profit on ordinary activities before interest and taxation decreased from US$188.4 million in 2000 to US$45.5 million in 2001. This reflected lower operating profit in 2001 and a profit of US$57.8 million on the sale of the Xstrata AG Group's oil and gas operations recognised in 2000. In 2001, the Xstrata AG Group recorded a non-recurring impairment of US$45.5 million on the carrying value of its Vanadium business in Western Australia, which also contributed to the decrease. The increase of US$10.1 million in net interest expense from US$11.5 million in 2000 to US$21.6 million in 2001 related to additional borrowings drawn in order to finance the acquisition of Asturiana.

Profit for the financial year

In 2001, the Xstrata AG Group recorded profit for the financial year of US$11.3 million, a decrease of US$144.0 million as compared to profit for the 2000 financial year of US$155.3 million. Minority interests recorded in 2001 related to other shareholders of Asturiana. Tax for the financial year decreased from US$21.6 million in 2000 to US$10.6 million in 2001. Tax charges were affected by local statutory tax rates in countries where the Xstrata AG Group operates. In addition, in 2001, the tax charge was affected by the non-recurring impairment of the carrying value of the vanadium business in Australia for which no tax relief was available. In 2000, the tax charge was affected by the benefit of favourable permanent differences arising in that year.

Year ended 31 December 2000 compared with year ended 31 December 1999

Turnover

Group. The Xstrata AG Group's turnover was US$597.9 million in the year ended 31 December 2000, a decrease of US$64.1 million or 9.7% from US$662.0 million in the year ended 31 December 1999. The decrease is attributable to the factors discussed below. The Xstrata AG Group's turnover from continuing operations increased US$24.4 million from US$520.1 million in the year ended 31 December 1999 to US$544.5 million in the year ended 31 December 2000.

Chrome. Turnover generated by sales of ferrochrome was US$419.3 million in the year ended 31 December 2000, an increase of US$60.3 million or 16.8% from US$359.0 million in the year ended 31 December 1999, largely reflecting an increase of 15% in achieved sales prices.

Vanadium. In the year ended 31 December 2000, turnover generated by the vanadium operations decreased by US$33.0 million or 32.5% to US$68.5 million from US$101.5 million in the year ended 31 December 1999. The decrease was primarily attributable to the continued slump in the global market price of vanadium and the reduction in production and sales volumes, although the group was partially protected from the decline in prices and volumes by its off-take agreement with Glencore International, which represented 61% of the Xstrata AG Group's vanadium pentoxide sales in 2000. In 1999, all of the Xstrata AG Group's vanadium pentoxide sales were made through the off-take agreement. See "Relationship with Glencore – Ferroalloys business – Vanadium operations" in Part II.

Other. Turnover from the Xstrata AG Group's additional activities decreased to US$56.7 million in the year ended 31 December 2000 from US$59.6 million in the year ended 31 December 1999.

Discontinued operations. Turnover from the Xstrata AG Group's discontinued operations in 2000 was US$18.1 million and related to the aluminium business, which was sold on 31 March 2000. Turnover from discontinued operations for 1999 includes full year turnover of US$39.7 million from the oil and gas business that was disposed of in January 2000 as well as full year turnover of US$65.9 million from the aluminium business.

Net operating costs

The Xstrata AG Group's net operating costs decreased by US$99.5 million, from US$566.8 million in 1999 to US$467.3 million in 2000. The decrease was primarily attributable to the impact of the disposal of the oil and gas and aluminium operations during 2000 and the depreciation of currencies in which the Xstrata AG Group incurs its production costs against the US dollar. The Xstrata AG Group's net operating costs from continuing operations decreased by US$12.3 million from US$425.4 million in 1999 to US$413.1 million in 2000.

Operating profit before common costs

Group. The Xstrata AG Group's operating profit before common costs increased by US$33.7 million or 33.1% from US$101.6 million in the year ended 31 December 1999 to US$135.3 million in the year ended 31 December 2000. This increase primarily reflected higher operating profits in the chrome operations, partly offset by reductions in operating profits of the vanadium operations. In addition, production costs decreased in US dollar terms across the business as a result of favourable exchange rate movements between the US dollar and the Rand. The Xstrata AG Group's operating profit before common costs from its continuing operations increased by US$37.5 million or 37.4%, from US$100.4 million in 1999 to US$137.9 million in 2000. The Xstrata AG Group's operating profit for the year ended 31 December 2000 was US$130.6 million, an increase of US$35.4 million or 37.2% over the operating profit of US$95.2 million for the year ended 31 December 1999.

Chrome. Operating profit before common costs of the chrome operations was US$114.9 million in the year ended 31 December 2000, an increase of US$64.0 million from US$50.9 million in the year ended 31 December 1999, due to the reasons described above in "– Turnover – Chrome" and "– Net operating costs".

Vanadium. Operating profit before common costs of the vanadium operations was US$20.6 million in the year ended 31 December 2000, a decrease of US$24.7 million or 54.5% from US$45.3 million in the year ended 31 December 1999 due to the reasons described above in "– Turnover – Vanadium" and "– Net operating costs".

Other. Operating profit before common costs of the Xstrata AG Group's additional activities decreased by US$1.8 million or 42.9%, from US$4.2 million in 1999 to US$2.4 million in 2000.

Discontinued operations. In 2000, the Xstrata AG Group recognised an operating loss before common costs of US$2.6 million from its discontinued operations and an operating profit before common costs of US$1.2 million in 1999.

Financial and exceptional items

In 2000, the Xstrata AG Group recorded a net gain of US$57.8 million on the disposal of its oil and gas and aluminium interests. This contributed to an increase in the Xstrata AG Group's profit on ordinary activities before interest and taxation from US$91.7 million in 1999 to US$188.4 million in 2000. Net interest expense was US$11.5 million in 2000, a decrease of US$3.1 million, as compared to the net interest expense of US$14.6 million in 1999. Net interest expense decreased as a result of repayments on certain debt facilities with the proceeds of the disposal of the oil and gas businesses.

Profit for the financial year

The Xstrata AG Group's profit for the financial year was US$155.3 million in 2000, an increase of US$71.3 million, or 84.9% over a profit of US$84.0 million for the 1999 financial year. This increase was mainly attributable to a net gain of US$57.7 million on the disposal of the Xstrata AG Group's oil and gas interests and lower US dollar net operating costs. Tax for the financial year increased from a tax credit of US$6.6 million in 1999 to a tax charge of US$21.6 million in 2000. Tax charges are affected by local statutory rates in countries where the Xstrata AG Group operates. In addition, in 1999, the tax credit reflected the benefit of favourable permanent differences arising in that year.

Enex Group

The following table sets out selected financial information of the Enex Group which has been extracted, without material adjustment, from the Accountants' Report contained in Part VI:

	Year ended 31 December (US$ million) [1]		
	1999	2000	2001
Turnover			
Continuing operations	94.7	189.5	**291.2**
Acquisitions	57.7	–	**371.2**
Turnover, total	152.4	189.5	**662.4**
Net operating costs	(146.4)	(179.5)	**(506.8)**
Operating profit	6.0	10.0	**155.6**
Share of operating profit in associate	–	2.3	**(0.5)**
Profit on disposal of tangible fixed assets	0.0	0.1	**1.5**
Income from investments	–	–	**0.8**
Interest receivable and similar income	1.0	5.6	**1.1**
Interest payable and similar charges	(0.8)	(0.3)	**(7.5)**
Translation of exchange differences on US dollar loan included in the Australian financial statements	(0.9)	(34.7)	**(29.5)**
Profit (loss) on ordinary activities before taxation	5.3	(17.0)	**121.5**
Tax on profit on ordinary activities	(2.4)	1.1	**(23.6)**
Profit (loss) on ordinary activities after taxation	2.9	(15.9)	**97.9**
Minority interest	–	–	**(13.2)**
Profit (loss) for the year	2.9	(15.9)	**84.7**
Exchange rates applied:			
Period average exchange rate (US$1:A$)	1.55	1.73	**1.94**
Period end exchange rate (US$1:A$)	1.53	1.80	**1.96**

(1) Columns may not add due to rounding.

The following table sets out certain profit and loss account items of the Enex Group as a percentage of its turnover for the periods indicated:

	Year ended 31 December		
	1999	2000	2001
Net operating costs	96.1%	94.7%	**76.5%**
Operating profit	3.9%	5.3%	**23.5%**
Profit/(loss) for the year	1.9%	(8.4)%	**12.8%**

Profit and loss account items

Turnover

The Enex Group derives its revenue from the sale of thermal and semi-soft coal from its mines in Australia. The Enex Group sells over 70% of its mine production under annually renewable long-term supply arrangements and its export sales are denominated in US dollars. The majority of the Enex Group's sales are to export markets. Further information on sales and marketing in relation to this operation is set out in "Information on the Group – Coal business – Description of the Australian operations" in Part I.

Net operating costs

The principal operating costs of the Enex Group are mining costs, distribution costs and depreciation and amortisation. Mining costs include labour, storage, power and repair and maintenance costs. All exported coal is sold FOB.

Other pre-tax items

Other items include profits on disposal of tangible fixed assets, interest and finance charges and exchange differences arising on funding loans.

Year ended 31 December 2001 compared with year ended 31 December 2000

Turnover

The Enex Group's turnover was US$662.4 million in the year ended 31 December 2001, an increase of US$472.9 million from US$189.5 million in the year ended 31 December 2000. The increase was principally attributable to revenues generated by several acquired mines including Oakbridge, Ulan and Cumnock and an increase in negotiated US dollar based coal prices. In 2001, the Enex Group achieved a 20.3% higher average price per tonne than in 2000 and 11.1% higher average price per tonne than in 1999. Turnover from continuing operations increased from US$189.5 million in 2000 to US$291.2 million in 2001.

Net operating costs

The Enex Group's net operating costs increased by US$327.3 million, from US$179.5 million in 2000 to US$506.8 million in 2001 principally as a result of operating costs incurred by the recently acquired mines. Operating costs incurred by existing operations increased to US$229.3 million in 2001 from US$179.5 million in 2000 reflecting higher volumes partly offset by the impact of the depreciation of the Australian dollar against the US dollar. Overall, net operating costs per tonne in local currency terms were in line with those of the previous year.

Operating profit

The Enex Group's operating profit increased by US$145.6 million from US$10.0 million in the year ended 31 December 2000 to US$155.6 million in the year ended 31 December 2001 due to the reasons described above in "– Turnover" and "– Net operating costs".

Other pre-tax items

In 2001, the Enex Group recorded a charge of US$29.5 million relating to foreign exchange differences which arose on the translation in its local currency financial statements of a US dollar denominated loan. A similar charge of US$34.7 million arose in 2000. Net interest expense (net of interest and similar income) was US$6.4 million in 2001 as compared to net interest income of US$5.3 million in 2000. This reflected a change in the Enex Group's relationship with Oakbridge, which was accounted for as an equity investment in 2000, and following the acquisition by the Enex Group of the majority interest in Oakbridge in 2001 was accounted for as a subsidiary. As a result of this change, any interest income on shareholder loans made to Oakbridge which would have been treated as interest income by the Enex Group prior to acquisition of the majority interest was eliminated following consolidation of Oakbridge into the Enex Group's profit and loss account in 2001. In addition, any interest expense

to third parties incurred by Oakbridge would not have been separately recorded as interest expense in the Enex Group's profit and loss account prior to 2001, but interest expense incurred in 2001 was separately recorded within interest expense as such in the Enex Group's consolidated profit and loss account for that year. A drawdown of US$300 million of interest-bearing debt under a syndicated loan facility also contributed to the change in the Enex Group's net interest expense in 2001.

Profit/(loss) for the year

The Enex Group's profit for the year was US$84.7 million in 2001, an improvement of US$100.6 million over a loss for the year of US$15.9 million in 2000. Following the acquisition and consolidation of Oakbridge Pty Limited in 2001, the interest of minority shareholders amounted to US$13.2 million. Tax for the financial year increased from a tax credit of US$1.1 million in 2000 to a tax charge of US$23.6 million in 2001. The relatively low effective tax rates for both years reflected the utilisation of tax losses, the benefit of which was not recognised in previous years, and a reduction in statutory tax rates in Australia.

Year ended 31 December 2000 compared with year ended 31 December 1999

Turnover

The Enex Group's turnover was US$189.5 million in the year ended 31 December 2000, an increase of US$37.1 million or 24.3% from US$152.4 million in the year ended 31 December 1999. The increase was attributable to full year revenues from mines acquired in July 1999 being reflected in the financial information for 2000. The increase was partly offset by lower achieved average sales prices reflecting lower US dollar export prices and a higher proportion of domestic sales.

Net operating costs

The Enex Group's net operating costs increased by US$33.1 million or 22.6%, from US$146.4 million in 1999 to US$179.5 million in 2000 mainly as a result of full year operating costs of mines acquired in July 1999 being reflected in the financial information for 2000. Operating costs incurred in local currency decreased in US dollar terms due to favourable exchange rate movements during 2000.

Operating profit

The Enex Group's operating profit increased by US$4.0 million from US$6.0 million in the year ended 31 December 1999 to US$10.0 million in the year ended 31 December 2000. These increases resulted from the developments described above in "– Turnover" and "– Net operating costs".

Other pre-tax items

Net interest and similar income (net of interest expense) was US$5.3 million in 2000, an increase of US$5.1 million, as compared to net interest and similar income of US$0.2 million in 1999. The net interest income in 1999 related primarily to interest received on loans to Oakbridge Pty Limited, then a 48% associate of the Enex Group. In 2000, the Enex Group recorded a charge of US$34.7 million relating to foreign exchange differences, which arose on the translation in its local currency financial statements of a US dollar denominated loan.

Profit/(loss) for the year

Tax for the financial year decreased from a tax charge of US$2.4 million in 1999 to a tax credit of US$1.1 million in 2000. The tax credit in 2000 reflected the utilisation of tax losses, the benefit of which was not recognised in previous years, together with a reduction in statutory tax rates. The 1999 tax charge reflects the utilisation of tax losses, the benefit of which was not recognised in previous years. The Enex Group's loss for the year in 2000 was US$15.9 million, a decrease of US$18.8 million over profit for the year of US$2.9 million in 1999.

Duiker Group

The table below sets out selected financial information of the Duiker Group which has been extracted, without material adjustment, from the Accountants' Report contained in Part VI. Due to a change in its financial year to the calendar year, the Duiker Group extended its financial period during 2000 from 30 September to 31 December, resulting in a 15 month financial period. As a result, financial information of the Duiker Group for the financial period 2000 is not comparable to its 1999 or 2001 financial years.

	Financial period (US$ million) [1]		
	1999[2]	2000[3]	2001[4]
Turnover			
Continuing operations	250.1	304.8	**371.3**
Joint ventures	51.2	62.1	**68.6**
Discontinued operations [5]	19.3	5.7	**–**
Turnover, total (including share of joint ventures)	320.6	372.6	**439.9**
Less turnover attributable to joint ventures	(51.2)	(62.1)	**(68.6)**
Turnover, total (less share of joint ventures)	269.4	310.5	**371.3**
Net operating costs	(240.0)	(285.3)	**(226.9)**
Operating profit, total (before joint ventures and associated undertakings)			
Continuing operations	33.7	25.2	**144.4**
Acquisition	–	0.7	**–**
Discontinued operations [5]	(4.3)	(0.7)	**–**
Operating profit (before joint ventures and associated undertakings)	29.4	25.2	**144.4**
Joint ventures	11.5	14.0	**32.1**
Associated undertaking	8.5	7.3	**24.7**
Total Operating profit	49.4	46.5	**201.2**
Profit on disposal of investments and fixed assets	–	5.1	**0.1**
Profit on ordinary activities before interest and taxation	49.4	51.6	**201.3**
Net interest payable	(19.9)	(18.9)	**(7.1)**
Profit on ordinary activities before taxation	29.5	32.7	**194.2**
Tax on profit on ordinary activities	(6.8)	(1.5)	**(40.1)**
Profit on ordinary activities after taxation	22.7	31.2	**154.1**
Dividends	(7.9)	–	**(66.7)**
Retained profit for the year	14.9	31.2	**87.4**
Exchange rates applied:			
Period average exchange rate (US$1:ZAR)	6.03	6.78	**8.63**
Period end exchange rate (US$1: ZAR)	6.01	7.56	**12.09**

(1) Columns may not add due to rounding.

(2) Financial year 1999 ended on 30 September 1999.

(3) Financial period 2000 ran 15 months from 1 October 1999 to 31 December 2000.

(4) Financial year 2001 ended on 31 December 2001.

(5) Discontinued operations include the Duiker Group's anthracite and gold operations. See "– Factors affecting comparability – Duiker Group" above.

The following table sets forth certain profit and loss account items of the Duiker Group as a percentage of its turnover (including share of joint ventures) for the periods indicated:

		Financial period	
	1999[1]	2000[2]	2001[3]
Net operating costs	74.9%	76.5%	**51.6%**
Total operating profit	15.4%	12.5%	**45.7%**
Continuing operations	10.5%	6.8%	**32.8%**
Joint ventures	3.6%	3.8%	**7.2%**
Associated undertakings	2.7%	2.0%	**5.6%**
Discontinued operations [4]	(1.3)%	(0.2)%	**–**
Retained profit for the year	4.6%	8.3%	**19.9%**

(1) Financial year 1999 ended on 30 September 1999.

(2) Financial period 2000 ran 15 months from 1 October 1999 to 31 December 2000.

(3) Financial year 2001 ended on 31 December 2001.

(4) Discontinued operations include the Duiker Group's anthracite and gold operations. See "– Factors affecting Comparability – Duiker Group" above.

Profit and loss account items

Turnover

The Duiker Group derives its revenue from the sale of thermal coal. Its coal sales are made both on the spot market and on the basis of supply contracts with negotiated volumes and prices. Approximately 75% of the Duiker Group's coal sales are exported. These sales are denominated in US dollars. Further information relating to sales and marketing for the Duiker Group is set out in "Information on the Group – Coal business – Description of the South African operations" in Part I.

Net operating costs

The principal operating costs of the Duiker Group are mining costs, distribution costs and depreciation and amortisation. Mining costs include labour, storage, power and repair and maintenance costs. Most of the exported coal is sold FOB.

Other pre-tax items

Other items comprise profit on disposal of tangible fixed assets, as well as net interest and the effect of unwinding the discounting of the Duiker Group's rehabilitation provisions.

Year ended 31 December 2001 compared with the 15 month period ended 31 December 2000

Turnover

Turnover of the Duiker Group (including share of joint ventures) was US$439.9 million in the year ended 31 December 2001, an increase of US$67.3 million from US$372.6 million in the 15 month period ended 31 December 2000. The increase was primarily due to higher average US dollar coal prices and a comparatively higher proportion of higher price exports. Despite the increased demand for coal, the sales volumes of Duiker Group have remained relatively stable as its export sales are constrained by the capacity of its coal terminal.

Net operating costs

Net operating costs of the Duiker Group decreased by US$58.4 million from US$285.3 million in 2000 to US$226.9 million in 2001. Depreciation of the Rand against the US dollar between 2000 and 2001 contributed to this decrease. Operating costs per tonne in local currency terms increased by approximately 8% during the period.

Operating profit

Operating profit (before joint ventures and associated undertakings) of the Duiker Group increased by US$119.2 million from US$25.2 million for the period ended 31 December 2000 to US$144.4 million for the year ended 31 December 2001 (before share of joint ventures and associates) due to the reasons described above in "– Turnover" and "– Net operating costs".

Other pre-tax items

In 2000 the Duiker Group recorded a net gain on disposal of investments and fixed assets of US$5.1 million largely attributable to the sale of its anthracite and gold operations. Net interest payable on borrowings was US$7.1 million in 2001, a decrease of US$11.8 million, as compared to the interest expense of US$18.9 million in 2000. The decrease

related primarily to the repayment of existing debt obligations financed with the Duiker Group's strong income from operations during 2001.

Profit for the year and dividends

The Duiker Group's profit for the year (after dividends) was US$87.4 million in the year ended 31 December 2001 and US$31.2 million in the 15 month period ended 31 December 2000. The Duiker Group's share of the results of its associates and joint ventures increased to US$56.8 million in 2001 from US$21.3 million in 2000. Most of this increase was attributable to the higher average US dollar coal price. A dividend of US$66.7 million was paid to Glencore International in 2001. Tax for the financial year increased from US$1.5 million in 2000 to US$40.1 million in 2001, reflecting increased profitability in 2001. In addition, in both years, the tax charge was affected by the benefit of permanent differences and in 2000 benefit of timing differences not previously recognised.

15 month period ended 31 December 2000 compared with year ended 30 September 1999

Turnover

Turnover of the Duiker Group (including share of joint ventures) was US$372.6 million in the 15 month period ended 31 December 2000 and US$320.6 million in the year ended 31 December 1999. During the period, the Duiker Group benefited from a higher export sales mix, the effect of which was offset by lower export prices.

Net operating costs

Net operating costs of the Duiker Group were US$240.0 million in 1999 and US$285.3 million in 2000.

Operating profit

Operating profit of the Duiker Group (before share of joint ventures and associated undertakings) was US$25.2 million for the 15 month period ended 31 December 2000 and US$29.4 million for the prior year due to the reasons described above in "– Turnover" and "– Net operating costs".

Other pre-tax items

In 2000, the Duiker Group recorded net gains of US$5.1 million from disposal of investments and fixed assets. This reflected primarily non-recurring gains of US$4.8 million from the disposal of its gold operations and non-recurring gains of US$1.1 million from the sale of its anthracite operations. Net interest payable was US$18.9 million in 2000, a decrease of US$1.0 million, as compared to the net interest payable of US$19.9 million in 1999. This related primarily to the impact of repayments of borrowings during 1999.

Profit for the year

The Duiker Group's profit for the period was US$31.2 million for the 15 month period ended 31 December 2000, an increase of US$16.3 million over profit for the year of US$14.9 million for the year ended 30 September 1999. Tax for the financial year decreased from US$6.8 million in 1999 to US$1.5 million in 2000. In both years, the tax charge was affected by the benefit of favourable permanent differences and timing differences not recognised. In addition, the tax charge was affected in 1999 by the change in the statutory tax rate in South Africa.

Reserve movements

As discussed above, trading results of the Xstrata AG and Duiker Groups have benefited from the depreciation of the Rand against the US dollar. However, the net asset values of the Xstrata AG and Duiker Groups have been negatively impacted by the translation of non-US dollar denominated assets into US dollars at each balance sheet date. These foreign exchange losses are recognised through reserves and as such do not affect trading performance. Further detail on reserve movements is given in the notes to the financial statements included in Part VI.

Liquidity and capital resources

The Group's primary source of liquidity for its operations is cash provided by operating activities and short-term and long-term borrowings.

Cashflow

Xstrata AG Group

From 2000 to 2001, the Xstrata AG Group's net cash inflow from operating activities decreased by US$14.6 million or 8.4%, from US$173.0 million in 2000 to US$158.4 million in 2001, primarily due to a reduction in the level of trading profitability. From 1999 to 2000, the Xstrata AG Group's net cash inflow from operations increased by

US$59.8 million or 52.8% from US$113.2 million in 1999 to US$173.0 million in 2000 due to increased trading profits and an improvement in the working capital position, in particular an increased level of creditors. The Xstrata AG Group generated cash proceeds from sale of operations of US$213.0 million in 2000 and US$67.3 million in 2001. Cash of US$453.6 million was utilised in acquisitions in 2001, principally on the acquisition of Asturiana.

Enex Group

The Enex Group's net cash inflow from operations increased by US$128.8 million, from US$9.0 million in 2000 to US$137.8 million in 2001 due to various acquisitions, increased US dollar prices and the depreciation of the Australian dollar against the US dollar. From 1999 to 2000, the Enex Group's net cash inflow from operations decreased by US$10.0 million from US$19.0 million in 1999 to US$9.0 million in 2000. From April 2001, cashflows from the Oakbridge operation were consolidated with those of the Enex Group. Working capital increased slightly during the period due to an increase in debtors and, to a smaller extent, increased stock reflecting the timing of shipments at the end of each period.

Duiker Group

The Duiker Group's net cash inflow from operations increased by US$60.6 million from US$38.6 million in 2000 to US$99.2 million in 2001. From 1999 to 2000, the Duiker Group's net cash inflow from operations decreased from US$66.9 million in 1999 to US$38.6 million in 2000 due to an increase in working capital requirements reflecting, principally, an increased level of receivables and a decreased level of payables. In 2001, working capital remained at a relatively low level despite the fact that inventory of the Duiker Group increased from US$17.7 million to US$24.6 million reflecting unfavourable market conditions in the last quarter of 2001. The Duiker Group incurred US$36.4 million and US$23.2 million in capital expenditure in 2001 and 2000, respectively.

Liquidity reserves

The following table shows the total net interest-bearing borrowings (excluding amounts falling due within one year) of the Xstrata AG, Enex and Duiker Groups on the dates indicated:

	As at 31 December (US$ million)		
	1999	2000	2001
Xstrata AG Group	195.9	34.5	**422.0**
Enex Group	–	2.6	**304.3**
Duiker Group	99.6[1]	58.9	**21.3**

(1) Information regarding the Duiker Group for 1999 is presented as at 30 September 1999.

Changes in the level of net interest-bearing debt of the Xstrata AG Group reflect the raising of new debt to finance acquisitions and repayment of existing debt with proceeds from disposals and operating cash flows. The level of net interest-bearing debt of the Enex Group increased in 2001 due to a new US$300 million credit facility the Enex Group negotiated to partially refinance certain non-interest-bearing shareholder loans, which the Enex Group has historically used to fund its acquisitions. The Duiker Group has reduced the level of its indebtedness during the period with increased cash from ongoing operations.

The average rates of interest on the Xstrata AG Group's loans in 2001 were 3.9% and 13.8% for US dollar and Rand borrowings, respectively. In 2000, the average rates of interest for the Xstrata AG Group's US dollar and Rand borrowings were 6.4% and 14.6%, respectively. From 1999 to 2001, the Duiker Group's average rate of interest on Rand borrowings declined from 16.3% to 11.5%. The Enex Group began to pay interest on its debt in November 2001 as a result of negotiating the US$300 million credit facility referred to above.

In connection with the Acquisitions and the Merger, the Group will obtain a Syndicated Loan Facility of up to US$1,400 million with a group of underwriting banks. For a description of the Syndicated Loan Facility, please see "Additional information - Agreements relating to the Acquisitions and the Merger - Syndicated Loan Facility Agreement" in Part VIII. The Syndicated Loan Facility will be used primarily for the Acquisitions and to support the working capital requirements of the Group going forward. Part of the Syndicated Loan Facility will also be used to refinance some of the debt facilities of the Xstrata AG Group, the Enex Group and the Duiker Group.

Following completion of the Acquisitions, the Merger, the Global Offer and the Syndicated Loan Facility described above, the Group's net borrowings are expected to be US$1,082.6 million and the Group's liquidity reserves from unused committed credit facilities are expected to be US$290.7 million on a pro forma basis (see "Unaudited pro forma financial information" in Part VII).

Working capital requirements and other financial commitments

The following table shows the gross capital expenditures of the Xstrata AG, Enex and Duiker Groups on the dates indicated (excluding acquisition cash flows):

	Period ended 31 December (US$ million)[1]		
	1999	2000	2001
Xstrata AG Group	105.8	56.1	**134.2**
Enex Group	5.2	3.1	**30.5**
Duiker Group	35.8	23.2	**36.4**

(1) For Duiker Group period 1999 ended on 30 September 1999.

The high level of the Xstrata AG Group's capital expenditure in 2001 related to expansion of the San Juan de Nieva smelting plant in Spain and expansion of its chrome operations, including addition of two joint furnaces with Samancor, in South Africa. In 1999, the primary capital expenditure item was the construction of the Windimurra vanadium plant in Western Australia.

In addition to the above, the Xstrata AG and Enex Groups have used significant funds for acquisitions of new operations. In 2001, the Xstrata AG Group's net cash flow in respect of acquisitions was a cash outflow of US$369.2 million, which related primarily to the acquisition of Asturiana. The Enex Group's cash utilised for acquisitions was US$173.8 million in 2001, US$199.0 million in 2000 and US$32.9 million in 1999. These payments related to acquisitions of various coal mines in Australia.

Management expects the Group's total capital expenditure in 2002 to be in line with 2001. Capital expenditure in the Enex Group is expected to increase in 2002 due to the development of acquired mines. Conversely, capital expenditure relating to the Zinc Business is expected to decrease as the expansion of the San Juan de Nieva zinc smelter was completed in 2001 and no new significant projects have been budgeted for this business.

The Group may make acquisitions of mines, plants or complete minerals and metals businesses that complement or enhance its existing production. However, other than the capital commitment to acquire coal mines in Ravensworth, Australia for US$64 million, subject to adjustment to reflect trading between 26 January 2001 and the completion plus A$5.6 million for the acquisition of certain land, the Group has not yet entered into any definitive agreement with respect to the acquisition of any significant business. The acquisition of the Ravensworth Group mines was completed on 13 March 2002. The Group may finance the purchase price of any contemplated acquisitions either through issuance of new equity or incurrence of debt.

In the opinion of the Company, following the Acquisitions and the Merger becoming effective and taking account of the Group's existing banking facilities and the net proceeds of the Global Offer and the Syndicated Loan Facility, the working capital available to the Group is sufficient for the Group's present requirements, that is, for the next 12 months following the date of this document.

Mineral properties

Mineral properties represent the accumulation of all exploration, evaluation and development expenditure incurred by or on behalf of the entity in relation to areas of interest in which the mining of a mineral resource has commenced. The relevant accounting policies regarding amortisation and depreciation of mineral properties for each of the Xstrata AG, Enex and Duiker Groups are set out in the notes to Financial Information in Part VI.

Quantitative and qualitative disclosures about market risk

The following discussion should be read in conjunction with "Financial information" in Part VI.

The Group is exposed to changes in foreign exchange rates, commodity prices and interest rates through its commercial and financial operations.

The Xstrata AG, Enex and Duiker Groups have, from time to time, entered into hedging transactions solely to manage risks. In accordance with UK GAAP, gains and losses on hedging instruments have not been and will not be recognised until the exposure that is being hedged has itself been recognised.

In general, the Company does not expect that the Group will enter into speculative hedge transactions, but the Group will consider taking hedge positions for risk management. In the event that the Group is to take a hedge position, it will require approval of the central management team. Only standard financial instruments will be used in taking such hedge positions.

Foreign exchange risk management

The Xstrata AG, Enex and Duiker Groups operate in a global business environment, with sales and costs denominated in different currencies. In addition, the results and balance sheets of certain subsidiaries of the Xstrata AG, Enex and Duiker Groups are reported in local currency terms and then translated into US dollars at rates prevailing at the balance sheet date. Monetary assets and liabilities which are not denominated in the local currency of the operation concerned are translated each year at exchange rates prevailing at the balance sheet date, with translation gains or losses included in the combined profit and loss account.

While the Xstrata AG, Enex and Duiker Groups have used derivative financial instruments designated as hedges to offset the fluctuations in the underlying exposure in the past, recently only the Xstrata AG Group and Enex Group have engaged in hedging transactions.

The following table summarises the derivative financial instruments held to hedge the currency exposure on expected future transactions:

	31 December 2000		31 December 2001	
	Book value (US$000)	Fair value (US$000)	Book value (US$000)	Fair value (US$000)
Forward foreign currency contracts				
Xstrata AG Group	–	(605)	–	(12,871)
Enex Group	–	(5,310)	–	(15,062)
Duiker Group	–	–	–	–

Market values have been used to determine the fair value of forward foreign currency contracts. The fair value of all other items has been calculated by discounting the expected future cash flows at prevailing interest rates.

Xstrata AG Group

The Xstrata AG Group's foreign exchange rate exposures comprise the monetary assets and monetary liabilities of the Xstrata AG Group other than those not denominated in the local currency of the operating unit involved and certain designated non-US dollar borrowings treated as hedges of net investments in overseas operations.

During 1999 and 2000 the use of foreign exchange rate derivative instruments by Xstrata AG Group was limited to forward foreign exchange contracts used to hedge sales of its Australian coal operations in US dollars. During 2001, the Australian coal operations were sold. The ferroalloys business unit's policy is not to hedge the Rand/US dollar exchange rate.

In 2001, the Xstrata AG Group acquired the Zinc Business. This operation will from time to time use forward exchange contracts in the normal course of business to offset the fluctuations in the underlying exposure to US dollar denominated expenditure. At 31 December 2001, it had unexpired forward foreign currency sales contracts totalling US$190 million. The estimated unrealised exchange losses in connection with the existing US dollar forward contracts at 31 December 2001 amounted to US$12.9 million.

Enex Group

The Enex Group currently uses Australian dollars as its functional currency. The Enex Group's foreign exchange rate exposures comprise its monetary assets and monetary liabilities that are not denominated in the functional currency.

The Enex Group enters into forward foreign exchange contracts to sell foreign currencies in the future at a pre-determined exchange rate. The contracts are entered into to hedge sales receipts denominated in US dollars. The Enex Group has a policy of entering into forward foreign exchange contracts to hedge net foreign currency receipts as sales contracts are concluded or when such contracts have a high probability of being concluded. The Enex Group will only hedge foreign currency receivables in respect of the subsequent 18 months of committed contractual sales.

Duiker Group

The Duiker Group currently uses the Rand as its functional currency. The Duiker Group's foreign exchange rate exposures comprise its monetary assets and monetary liabilities that are not denominated in the functional currency.

Prior to the purchase of the Duiker Group by Glencore, the Duiker Group entered into foreign exchange contracts to manage its exposure to certain foreign denominated liabilities. The Duiker Group also entered into foreign exchange contracts to manage its exposure to foreign denominated sales. The foreign currency loan has since

been converted into Rand and the practice of entering into foreign exchange contracts has since been discontinued in terms of the current holding company mandate.

Commodity price risk management

Fluctuations in commodities prices have had an effect on the sales prices achieved by the Xstrata AG, Enex and Duiker Groups. In the past, primarily the Xstrata AG Group has used derivative financial instruments and long-term supply contracts with fixed prices to offset the fluctuations in the global market prices of its products. The Enex Group and the Duiker Group have sold their coal production both on the spot market and on the basis of supply contracts with negotiated prices and volumes.

The Xstrata AG Group has entered into a number of commercial arrangements to reduce its exposure to unexpected decreases in the global market price of its products. The Xstrata AG Group has an offtake agreement with Glencore International, its marketing agent, for seven million pounds per annum of its South African vanadium pentoxide production at a fixed price of US$3.65 per pound and US$3.80 per pound for the years 2001 and 2002, respectively. Any surplus arising between the fixed prices and the delivered customer prices is shared between the Xstrata AG Group and the agent.

The Xstrata AG Group's Zinc Business has purchased LME zinc futures to hedge potential market price fluctuations from the time the zinc concentrate is bought to the time when the zinc metal is sold. The purpose of these derivative financial instruments is to hedge risk of any potential fluctuations in the market value of the zinc concentrate that has been purchased from third parties for processing and subsequent resale as zinc metal. As at 31 December 2001, the estimated deferred gain from the Xstrata AG Group's zinc hedges was US$7.1 million.

Interest rate risk management

The Xstrata AG, Enex and Duiker Groups finance their operations through a mixture of retained earnings and bank borrowings. Borrowings are made at floating rates. In addition, the Xstrata AG, Enex and Duiker Groups have floating rate financial assets including bank accounts, which attract interest at commercial rates. Interest rate fluctuations can have a negative effect on the interest payments for and receivables from these liabilities and assets.

A summary of the Group's financial liabilities (excluding finance lease obligations) and their interest rate profiles is set out below:

Variable rate borrowings	Financial liabilities At 31 December 2001 US$000	Benchmark rate for variable interest rate
Xstrata AG Group		
US$	468,290	LIBOR
ZAR	30,604	SA prime rate
Euro	2,090	LIBOR
Overdraft	1,349	LIBOR
	502,333	
Enex Group		
US$	302,017	LIBOR
A$	21,609	Australian BBSW
	323,626	
Duiker Group		
ZAR	47,948	SA prime rate

Certain recent and proposed accounting pronouncements

As a result of a European Commission Proposal for Regulation issued on 15 February 2001, all UK listed companies will be required to prepare consolidated accounts under International Accounting Standards from 2005.

The Accounting Standards Board has indicated that it will probably not issue further UK accounting standards during the period to 2005.

Recently issued UK accounting standards include FRS 17 Retirement benefits, FRS 18 Accounting policies and FRS 19 Deferred tax.

FRS 18 and FRS 19 have been adopted in the presentation of financial information included in Part VI.

The disclosure requirements of FRS 17 have been applied to material items included in Part VI of this document. The Group will be required to implement additional disclosure requirements of FRS 17 in its next accounting period and to reflect all of the accounting and disclosure requirements of the standard for the year ending December 2004. These requirements relate mainly to defined benefit schemes and amounts recognised in the profit and loss account, and the statement of total recognised gains and losses.

In addition, the fair value of all of the Group's defined benefit pension scheme liabilities will be reflected on the balance sheet.

Past forecast financial information

On 7 August 2001 Enex and Glencore Overseas AG published an institutional offer memorandum and retail prospectus in connection with a proposed global offer of shares in Enex and the proposed admission of its share capital to the official list of the Australian Stock Exchange Limited (the "ASX") and quotation of the shares on the ASX. The institutional offer memorandum and retail prospectus contained certain forecast financial information in respect of the Enex Group and the Duiker Group for the years ending 31 December 2001 and 2002. On 26 February 2002, Enex and Glencore Overseas AG lodged a Supplementary Prospectus with the Australian Securities and Investments Commission which stated that, subject to the completion of the Acquisitions and the Merger, Enex and Glencore Overseas AG had decided not to proceed with the retail and institutional offers and not to seek the listing of Enex on the ASX. Such forecast financial information was prepared based upon certain assumptions and estimates which were stated to be subject to a wide variety of significant business, economic and competitive risks and uncertainties, and actual results have differed, and are expected to differ from those forecasts. In addition, such forecasts were prepared in accordance with Australian GAAP and on a basis which is not relevant to the position of the Group. Accordingly, the Company does not accept any responsibility for such forecasts and no reliance should be placed on them.

Recent developments

On 13 March 2002, the Enex Group completed its acquisition of the Ravensworth Group mines from Coal & Allied Industries Limited. Coal & Allied purchased the interests through its acquisition of Peabody Resources Ltd in 2001. The Enex Group's interests are in two operating coal mines and one project, grouped as follows:

- Narama is an operating opencut mine, in which the Enex Group has a 50% interest. The other 50% is held by Iluka Resources Ltd;
- Ravensworth East is an operating opencut mine and is held 100% by the Enex Group; and
- the Ravensworth West project is held 100% by the Enex Group.

The Enex Group has also agreed to acquire the land on which the Ravensworth West project is situated. This acquisition will be completed as soon as subdivision approval is obtained from local authorities.

Current trading and prospects

The operating performance of the Group is influenced, to a significant degree, by commodity prices and exchange rates, primarily the Rand/US$, the A$/US$ and the Euro/US$ exchange rates.

Coal Business

The Australian operations

Since 31 December 2001, the Australian operations have experienced high demand in certain key markets whilst unit prices have generally remained steady. Attributable sales for January and February 2002 amounted to approximately 3.7 million tonnes compared with a budget of 3.5 million tonnes for that period. Attributable sales have also been considerably higher than those achieved by the Australian operations in January and February 2001 partly as a result of the acquisitions of several mines during 2001. Attributable sales during January and February 2002 were higher than attributable sales (including attributable sales from those mines acquired in 2001) for the corresponding period in the prior year. Average prices achieved by the Australian operations for export coal, which accounts for over 90% of sales, have varied between US$28.15 to US$34.75 per tonne. See "Financial information – Expected cash flow requirements – Turnover and operating costs" in Part VI.

The Australian dollar has strengthened slightly against the US dollar since 31 December 2001 although average rates are consistent with those experienced during 2001. The Enex Group had hedged forward its exposure to

Australian dollar commitments. Accordingly, the movement in exchange rates has had limited impact upon the results of the Australian operations during the current period.

The Directors currently expect that the trading volumes of the Australian operation will be significantly higher than in 2001 due principally to the effect of the mines acquired during 2001 but also as a result of increased production and demand. The potential impact resulting from movements in the Australian dollar is expected to continue to be largely hedged. The Directors expect the combination of these features to have a positive impact upon activity levels and margins.

The South African operations

Attributable sales for the South African operations for January and February 2002 amounted to 2.5 million tonnes compared with attributable sales achieved in January and February 2001 of 2.8 million tonnes. Average prices achieved by the South African operations for export coal and domestic coal since 31 December 2001 have been marginally lower than the forecast for 2002 of US$29.60 per tonne and US$8.32 per tonne, respectively. See "Financial information – Expected cash flow requirements – Turnover and operating costs" in Part VI.

Average Rand/US$ exchange rates have remained broadly constant since 31 December 2001 as compared with prevailing rates during December 2001. Trading results for February 2002 indicate a performance slightly better than that of the corresponding period of the prior year.

The Directors expect the South African operations to maintain steady sales volumes during the remainder of 2002.

Zinc Business

Production and sales volumes of the Zinc Business have increased during the first two months of 2002 compared to volumes experienced in the corresponding period in the prior year reflecting the expansion of the San Juan de Nieva smelting plant's capacity in July 2001. Market prices for zinc declined during January and February 2002 to levels below those observed at the end of 2001. The Directors expect total sales volumes for refined zinc in 2002 to exceed volumes experienced in 2001 as a result of the Zinc Business's increased smelting capacity.

Ferroalloys Business

The results of the Ferroalloys Business improved during the first two months of 2002 compared to the corresponding period in the prior year. Sales volumes of the vanadium operations have increased during the first two months of 2002 compared to the volumes experienced in the corresponding period in the prior year although prices have declined and are below the levels experienced during the corresponding period in the prior year.

Prices for ferrochrome remain close to historic lows but have marginally improved during the first two months of 2002 although prices remain lower than those experienced in the corresponding period in the prior year. Attributable sales of ferrochrome were higher than those achieved during the corresponding period in the prior year reflecting improved trading conditions compared to the weak conditions observed in the corresponding period in the prior year.

The Directors believe that sales of both ferrochrome and vanadium will continue to recover during the remainder of 2002.

The average Rand/US$ exchange rate during January and February 2002 has been weaker than the average Rand/US$ exchange rate during the same period in the prior year and this has partly led to the improved profitability of the Ferroalloys Business in US dollar terms. The average Rand/US$ exchange rate has remained broadly constant during the current period.

The Group

As described above, the Group's trading and prospects are influenced to a significant degree by commodity prices and exchange rates against the US dollar.

Management expects that the completion of the Acquisitions, the Merger and Admission will create a platform for growth and provide the Group with increased access to international capital markets. The Group will utilise this platform to pursue further acquisitions and to fund the ongoing development of its existing businesses. In particular, the Group will seek to maintain its position as a cost competitive producer thereby maximising returns.

The Directors are satisfied with the current trading and prospects of the Group.

Financial information

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20 March 2002

Dear Sirs

XSTRATA PLC ("XSTRATA" OR THE "COMPANY")

1. Introduction

We report on the financial information set out below. This financial information has been prepared for inclusion in the listing particulars dated 20 March 2002 of the Company (the "Listing Particulars").

The Company was incorporated on 31 December 2001 as a private limited company with the name Glassdesk Limited. On 18 February 2002, its name was changed to Xstrata Limited. On 20 February 2002, the Company was re-registered as a public limited company with the name Xstrata plc.

On 20 February 2002, Xstrata entered into a Merger Agreement with Xstrata AG, the holding company of the Xstrata AG group. Pursuant to this Merger Agreement Xstrata AG agreed to transfer its entire undertaking, including all of its assets, to Xstrata in consideration for which Xstrata will issue shares to the shareholders of Xstrata AG in proportion to their respective holdings of shares in Xstrata AG. In addition, Xstrata will assume all of Xstrata AG's liabilities. Xstrata AG is a Swiss registered company and is currently listed on the SWX Swiss Exchange.

Basis of preparation

The financial information set out on pages 118 to 120 is based on the audited non-statutory accounts of the Company for the period from incorporation to 31 December 2001 to which no adjustments were considered necessary. The Company did not trade during this period.

Responsibility

The audited non-statutory accounts of the Company referred to above are the responsibility of the directors of the Company who approved their issue. The directors of the Company are responsible for the contents of the Listing Particulars in which this report is included.

It is our responsibility to compile the financial information set out in our report from the non-statutory accounts, to form an opinion on the financial information and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards issued by the Auditing Practices Board. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. The evidence included that recorded by the auditors who audited the non-statutory accounts underlying the financial information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial statements underlying the financial information and whether the accounting policies are appropriate to Xstrata's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing standards generally accepted in the United States of America and accordingly should not be relied upon as if it had been carried out in accordance with those standards.

Opinion

In our opinion, the financial information gives, for the purposes of the Listing Particulars, a true and fair view of the state of affairs of Xstrata as at the date stated and of its cash flows for the period then ended.

1. Balance Sheet

	At 31 December 2001 US$
CURRENT ASSETS	
Cash and short term deposits	1
NET ASSETS	1
CAPITAL AND RESERVES	
Called up share capital	1
	1

2. Statement of Cash Flows

	Period ended 31 December 2001 US$
FINANCING	
Issue of shares	1
INCREASE IN CASH	1

RECONCILIATION OF NET CASH FLOW TO MOVEMENT IN NET DEBT

	Period ended 31 December 2001 US$
(Decrease) / increase in cash	1
MOVEMENT IN NET DEBT	1
NET DEBT AT 1 JANUARY	–
NET DEBT AT 31 DECEMBER	1

3. Notes to the Financial Information

1. Accounting Policies

Basis of preparation

The financial information has been prepared under the historical cost convention and in accordance with applicable UK accounting standards.

2. Share Capital

The authorised share capital of the Company as at 31 December 2001 was £1,000 divided into 1,000 ordinary shares of £1.

On incorporation the Company issued one ordinary share of £1 for cash.

3. Reserves

	Share capital £
Balance at start of period	–
Issued share capital at incorporation	1
At 31 December 2001	**1**

No material contracts or transactions have been entered into save for those detailed in note 4 below. Xstrata has not yet traded and has made neither profit or loss nor any other recognised gain or loss in the current or preceding period, and no dividends have been declared or paid.

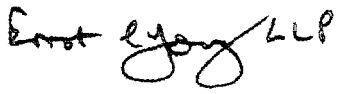
4. Subsequent Events

On 20 February 2002, Xstrata entered into the Merger Agreement described above. On 21 February 2002, Xstrata plc, Xstrata (Schweiz) AG and Xstrata South Africa (Proprietary) Limited (the "Purchasers"), Xstrata AG and Glencore International AG, Duiker Coal Investments Limited, Duffield Trading Limited, Glencore Finance (Bermuda) Limited and Stychus Invest AG (the "Vendors") entered into the Acquisition agreement to purchase the entire issued share capital of each of Glencore Overseas AG (of which Enex Resources Limited is a wholly owned subsidiary), Duiker Marketing AG and Duiker Mining (Propreitary) Limited (the "Coal Assets") for cash and Ordinary Shares in Xstrata plc with an aggregate value of US$2,067,910,000 (which includes an agreed amount relating to working capital of US$73,000,000), in addition to which Xstrata plc has agreed to assume net indebtedness of Glencore Overseas AG, Duiker Mining (Proprietary) Limited and Duiker Marketing AG and each of their subsidiaries and subsidiary undertakings and where the context requires their associated undertakings and procure the repayment of shareholder loans to Glencore International AG, resulting in a total value of US$2,573,000,000. Completion of the Acquisitions is subject to a number of conditions including Admission of the shares of Xstrata plc to the Official List of the UK Listing Authority.

The acquisition agreement is subject to a number of conditions, including regulatory and third party consents.

On 9 February 2002, Xstrata issued one ordinary share of £1 for a cash consideration of £1. On 19 February 2002, Xstrata issued 49,998 ordinary shares of £1 each paid up as to a quarter of the nominal value for a total consideration of £12,499.50. On 19 March 2002, the 50,000 issued ordinary shares of £1 each were redesignated as 50,000 deferred shares of £1 each, and the authorised share capital was increased to US$175,000,000.50 and £50,000 by the creation of 350,000,000 ordinary shares of US$0.50 each and one special voting share of US$0.50.

Yours faithfully



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20 March 2002

Dear Sirs

XSTRATA AG AND ITS SUBSIDIARIES AND ASSOCIATES (THE "XSTRATA AG GROUP")

1. Introduction

We report on the financial information set out below. This financial information has been prepared for inclusion in the listing particulars dated 20 March 2002 (the "Listing Particulars") of Xstrata plc ("Xstrata").

Basis of preparation

The financial information set out on pages 122 to 155 is based on the audited consolidated financial statements of the Xstrata AG Group for the three years ended 31 December 2001, and has been prepared on the basis set out on page 126, after making such adjustments as considered necessary. The Xstrata AG Group prepares its consolidated financial statements in accordance with standards issued by the International Accounting Standards Board. Adjustments have been made to present the financial information in accordance with Generally Accepted Accounting Practice in the United Kingdom ("UK GAAP").

Responsibility

Such financial statements are the responsibility of the directors of Xstrata AG who approved their issue.

The directors of Xstrata are responsible for the contents of the Listing Particulars in which this report is included.

It is our responsibility to compile the financial information set out in our report from the financial statements, to form an opinion on the financial information and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards issued by the Auditing Practices Board. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. The evidence included that recorded by the auditors who audited the financial statements underlying the financial information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial statements underlying the financial information and whether the accounting policies are appropriate to the Xstrata AG Group's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing standards generally accepted in the United States of America and accordingly should not be relied upon as if it had been carried out in accordance with those standards.

Opinion

In our opinion, the financial information gives, for the purposes of the Listing Particulars, a true and fair view of the state of affairs of the Xstrata AG Group as at the dates stated and of its profits, cash flows and recognised gains and losses for the periods then ended.

2. Consolidated Profit and Loss Accounts

	Notes	Year ended 31 December 1999 US$000	2000 US$000	2001 US$000
TURNOVER				
Continuing operations		520,086	544,440	**346,969**
Acquisitions		-	-	**266,634**
		520,086	544,440	**613,603**
Discontinued operations		141,929	53,431	-
Group turnover		662,015	597,871	**613,603**
Net operating costs	6.3	(566,836)	(467,308)	**(521,157)**
OPERATING PROFIT	6.4	95,179	130,563	**92,446**
Continuing operations				
ongoing		94,666	131,350	**47,649**
acquisitions		-	-	**44,797**
		94,666	131,350	**92,446**
Discontinued operations		513	(787)	**-**
TOTAL OPERATING PROFIT		95,179	130,563	**92,446**
Continuing operations:				
(Loss)/profit on disposal of tangible fixed assets		(3,460)	(50)	**466**
Impairment of vanadium assets		-	-	**(45,500)**
Discontinued operations:				
Profit/(loss) on sale of operations		-	57,854	**(1,954)**
PROFIT ON ORDINARY ACTIVITIES BEFORE INTEREST AND TAXATION		91,719	188,367	**45,458**
Bank interest receivable and similar income		2,831	2,570	**2,136**
Interest payable and similar charges	6.7	(17,406)	(14,068)	**(23,690)**
PROFIT ON ORDINARY ACTIVITIES BEFORE TAXATION		77,144	176,869	**23,904**
Tax on profit on ordinary activities	6.8	6,631	(21,614)	**(10,635)**
PROFIT ON ORDINARY ACTIVITIES AFTER TAXATION		83,775	155,255	**13,269**
Minority interests: Equity		269	-	**(2,016)**
PROFIT FOR THE FINANCIAL YEAR ATTRIBUTABLE TO MEMBERS OF THE PARENT COMPANY		84,044	155,255	**11,253**
Earnings per share - basic and diluted	6.9	US$14.52	US$26.91	**US$1.95**

NOTE OF HISTORICAL COST PROFITS AND LOSSES

There is no material difference between the reported profit and the historical cost profit for any of the years 1999, 2000 and 2001.

3. Statement of Total Recognised Gains and Losses

	Year ended 31 December		
	1999 US$000	2000 US$000	2001 US$000
Profit for the financial year attributable to members of the parent company	84,044	155,255	11,253
Exchange difference on retranslation of net assets of subsidiary undertakings	(18,256)	(110,345)	(146,467)
TOTAL RECOGNISED GAINS AND LOSSES RELATING TO THE YEAR	65,788	44,910	(135,214)

Reconciliation of Shareholders' Funds

	Year ended 31 December		
	1999 US$000	2000 US$000	2001 US$000
Total recognised gains and losses	65,788	44,910	(135,214)
Shareholders' funds at 1 January	563,638	629,426	674,336
Shareholders' funds at 31 December	629,426	674,336	539,122

4. Consolidated Balance Sheets

	Notes	At 31 December 1999 US$000	At 31 December 1999 US$000	At 31 December 2000 US$000	At 31 December 2000 US$000	At 31 December 2001 US$000	At 31 December 2001 US$000
FIXED ASSETS							
Intangible assets	6.11	2,360		5,365		**125,160**	
Tangible assets	6.10	806,293		604,236		**771,680**	
Own shares	6.12	21,026		23,513		**22,941**	
Other long-term assets	6.13	18,161		4,924		**13,082**	
			847,840		638,038		**932,863**
CURRENT ASSETS							
Stocks	6.15	114,575		114,837		**144,768**	
Debtors	6.16	156,113		133,174		**188,170**	
Cash and short-term deposits	6.17	7,786		44,736		**45,866**	
			278,474		292,747		**378,804**
CREDITORS: amounts falling due within one year	6.18	(177,741)		(116,876)		**(221,726)**	
NET CURRENT ASSETS			100,733		175,871		**157,078**
TOTAL ASSETS LESS CURRENT LIABILITIES			948,573		813,909		**1,089,941**
CREDITORS: amounts falling due after more than one year	6.19		(195,883)		(34,502)		**(421,990)**
PROVISION FOR LIABILITIES AND CHARGES	6.22		(123,221)		(105,030)		**(126,835)**
			629,469		674,377		**541,116**
MINORITY INTERESTS: Equity			(43)		(41)		**(1,994)**
			629,426		674,336		**539,122**
CAPITAL AND RESERVES							
Called up share capital	6.23		41,569		41,569		**41,569**
Share premium	6.24		267,365		267,365		**267,365**
Other reserves	6.24		26,454		26,517		**26,517**
Profit and loss account	6.24		294,038		338,885		**203,671**
			629,426		674,336		**539,122**

5. Statement of Consolidated Cash Flows

	Notes	Year ended 31 December 1999 US$000	2000 US$000	2001 US$000
NET CASH INFLOW FROM OPERATING ACTIVITIES	6.25(a)	113,203	173,040	**158,429**
RETURNS ON INVESTMENTS AND SERVICING OF FINANCE				
Interest received		2,805	2,550	**2,136**
Interest paid		(17,406)	(15,710)	**(22,441)**
		(14,601)	(13,160)	**(20,305)**
TAXATION				
Tax paid		(17,786)	(1,300)	**(11,802)**
CAPITAL EXPENDITURE AND FINANCIAL INVESTMENT				
Net payments to acquire tangible fixed assets		(105,771)	(56,132)	**(134,212)**
Disposal of own shares		–	12,944	**982**
Acquisition of own shares		(16,967)	(11,515)	**(1,554)**
		(122,738)	(54,703)	**(134,784)**
ACQUISITIONS AND DISPOSALS				
Disposal of operations		–	213,036	**67,281**
Purchase of operations		(3,993)	(4,185)	**(453,583)**
Cash acquired with operations		–	–	**18,006**
Net cash disposed of with operations		–	(1,031)	**(880)**
		(3,993)	207,820	**(369,176)**
MANAGEMENT OF LIQUID RESOURCES				
Decrease/(increase) in short-term deposits	6.25(b)	10,188	(35,304)	**7,854**
(Decrease)/increase in current borrowings	6.25(b)	(11,733)	–	**78,994**
		(1,545)	(35,304)	**86,848**
NET CASH (OUTFLOW)/INFLOW BEFORE FINANCING		(47,460)	276,393	**(290,790)**
FINANCING				
New long-term loans	6.25(b)	33,034	–	**307,967**
Repayment of long-term loans	6.25(b)	(6,664)	(216,880)	**–**
		26,370	(216,880)	**307,967**
(DECREASE)/INCREASE IN CASH	6.25(b)	(21,090)	59,513	**17,177**

Reconciliation of Net Cash Flow to Movement in Net Debt

	Notes	Year ended 31 December 1999 US$000	2000 US$000	2001 US$000
(Decrease) / increase in cash		**(21,090)**	**59,513**	**17,177**
Cash (inflow) / outflow from increase in loans		(14,636)	216,880	**(386,961)**
Cash (inflow) / outflow from short-term deposits		(10,188)	35,304	**(7,854)**
Change in net debt resulting from cash flows		(45,914)	311,697	**(377,638)**
Exchange differences		2,062	–	**21,673**
Loans (acquired) / disposed of with operations		–	(54,689)	**(101,194)**
MOVEMENT IN NET DEBT		**(43,852)**	**257,008**	**(457,159)**
NET (DEBT)/CASH AT 1 JANUARY	6.25(b)	**(212,464)**	**(256,316)**	**692**
NET (DEBT)/CASH AT 31 DECEMBER	6.25(b)	**(256,316)**	**692**	**(456,467)**

6. Notes to the Consolidated Financial Information

1. Accounting Policies

Basis of preparation

The financial information has been prepared under the historical cost convention and in accordance with applicable UK accounting standards including early adoption of Financial Reporting Standard 19; Deferred Taxation. The financial information is based upon the consolidated financial statements of Xstrata AG. The Xstrata AG Group has adopted the following principal accounting policies:

Translation of financial statements

The accounts of the subsidiaries have been translated from the local functional currencies into US dollars by converting the profit and loss account at the average rate for the reporting period and the balance sheet at the rate on the balance sheet date. The exchange difference arising on the retranslation of opening net assets is taken directly to reserves. The exchange rates applied are set out below.

Basis of consolidation

The financial information consolidates the accounts of Xstrata AG and all its subsidiary undertakings ("subsidiaries") for the three years ended 31 December 2001.

Asturiana de Zinc, S.A. ("Asturiana") has been included in the financial information using the acquisition method of accounting. Accordingly, the consolidated profit and loss account and statement of cash flows include the results and cash flows of Asturiana for the eight month period from its acquisition on 3 May 2001. The purchase consideration has been allocated to assets and liabilities on the basis of fair values at the date of acquisition.

The consolidated profit and loss account and statement of cash flows for 2001 do not include Xstrata AG's share of the results and cash flows in Xstrata Coal Pty Limited (a company operating the United Coal Mine) as it was sold in 2001.

Entities, other than subsidiary undertakings or joint ventures, in which the Xstrata AG Group has a participating interest and over whose operating and financial policies the Xstrata AG Group exercises a significant influence are treated as associates. In the Xstrata AG Group accounts, associates are accounted for using the equity method.

The Xstrata AG Group has certain contractual arrangements with other participants to engage in joint activities that do not create an entity carrying on a trade or business of its own. The financial information includes the Xstrata AG Group's share of the assets, liabilities and cash flows in such joint arrangements, measured in accordance with the terms of each arrangement, which is usually pro-rata to the Xstrata AG Group's interest in the joint arrangement.

Foreign currencies

Transactions in foreign currencies are translated at the exchange rates ruling at the date of transaction or, where forward cover contracts have been arranged, at contractual rates. Monetary assets and liabilities denominated in foreign currencies are retranslated at year end exchange rates, or at a contractual rate if applicable.

Gains and losses on hedging transactions intended to hedge specific sales of goods are included in the measurement of the sale in the same period in which the revenues or costs from the hedged transaction are recorded.

On consolidation, profit and loss account items are translated at average rates of exchange. Balance sheet items are translated at year end exchange rates.

Exchange differences on the translation of the net assets of overseas companies, less offsetting exchange differences on foreign currency borrowings financing those net assets, are dealt with through reserves. All other exchange differences are charged or credited to the profit and loss account in the year in which they arise.

The following exchange rates have been applied:

Currency rates (US$1)	31 Dec 1999	Average 1999	31 Dec 2000	Average 2000	31 Dec 2001	Average 2001
Swiss francs (CHF)	1.5985	1.5034	1.6199	1.6901	1.6749	1.6884
Argentinian pesos (ARS)	1.0000	1.0000	1.0000	1.0000	N/A	N/A
Chilean pesos (CLP)	530.07	512.85	573.65	542.08	654.79	637.57
South African Rand (ZAR)	6.1558	6.1139	7.5550	6.9387	12.0900	8.6249
Australian dollars (A$)	1.5310	1.5498	1.7974	1.7255	1.9556	1.9352
Euro (€)	N/A	N/A	1.0658	1.0860	1.1301	1.1178

Turnover

Revenue is recognised when all significant risks and rewards of ownership of the asset sold are transferred. Sales revenue represents gross proceeds receivable from the customer.

Cost of sales

Cost of sales represents material cost, determined by means of either the weighted average or first in first out (FIFO) method, and by applying full absorption costing of manufacturing overheads, plus any other costs directly attributable to the acquisition of materials.

Goodwill

Goodwill represents the difference between the cost of acquisition and the fair value of the identifiable net assets acquired, and is capitalised as an asset in the balance sheet. Goodwill is amortised over its estimated useful economic life on a straight-line basis up to a maximum of 20 years.

Investments

Investments, other than investments in subsidiaries and associates, are measured at cost less accumulated impairment losses.

Other financial assets

Other financial assets originated by the Xstrata AG Group are stated at cost less a provision for doubtful debts.

Tangible fixed assets

Capital work in progress

Assets in the course of construction are capitalised in the capital work in progress account. On completion, the cost of construction is transferred to the appropriate category of tangible fixed assets.

The cost of a tangible fixed asset comprises its purchase price and any costs directly attributable to bringing it into working condition for its intended use.

Costs associated with a start up period are capitalised where the asset is available for use but incapable of operating at normal levels without a commissioning period.

Interest payable on borrowings related to construction or development projects is capitalised until the point when substantially all the activities that are necessary to make the asset ready for use are complete.

Plantations

Plantations are recorded at cost. Development costs, interest and financing costs relating to the development of the plantations are deferred and amortised upon commencement of commercial production, on a unit of production basis.

Mineral properties and mine development expenditure

Costs of acquiring mineral properties are capitalised on the balance sheet in the year in which they are incurred. Capitalised costs (development expenditure) include interest and financing costs relating to the construction of plant and equipment and costs associated with a start up period where the asset is available for use but incapable of operating at normal levels without a commissioning period. *Interest and financing costs are capitalised only for those projects for which funds have been borrowed.*

Mineral properties and capitalised costs are, upon commencement of production, amortised using the unit of production method based on the estimated life of the ore body to which they relate or are written-off if the property is abandoned.

Land and plant

Items of property, plant and equipment are stated at cost less accumulated depreciation. Freehold land is not depreciated.

Depreciation is provided on a straight-line basis over the estimated useful lives of the assets.

The estimated useful lives of the assets are as follows:

Plant and equipment	20-30 years
Buildings	15-25 years
Furniture and fixtures	10-15 years
Other	3-5 years

Impairment

The carrying amounts of fixed assets are reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable. If there are indicators of impairment, an exercise is undertaken to determine whether the carrying values are in excess of their recoverable amount. Such review is undertaken on income generating units ("IGU").

If the carrying amount of a fixed asset exceeds the recoverable amount, a provision is recorded to reflect the asset at the lower amount. In assessing recoverable amount for property, plant and equipment and investments, the relevant future cash flows expected to arise from the continuing use of such assets and from their disposal have been discounted to their present value using a market-determined, risk-adjusted discount rate.

Stocks

Stocks are stated at the lower of cost and net realisable value. Cost includes all costs incurred in bringing each product to its present location and condition. Stock is categorised, as follows:

- Raw materials and consumables: Materials, goods or supplies (including energy sources) to be either directly or indirectly consumed in the production process.

- Work in progress: Items stored in an intermediate state that have not yet passed through all stages of production.
- Finished goods: Products and materials that have passed all stages of the production process.

Net realisable value is based on estimated selling price less any further costs expected to be incurred to completion and disposal.

Provisions for liabilities and charges

Provisions are recognised when the Xstrata AG Group has a present obligation, as a result of past events, and it is probable that an outflow of resources that can be reliably estimated will be required to settle such an obligation.

Environmental protection, rehabilitation and closure costs

Provision is made for close down, restoration and for environmental rehabilitation costs (which include the dismantling and demolition of infrastructure, removal of residual materials and remediation of disturbed areas) in the accounting period when the related environmental disturbance occurs, based on the estimated future costs. The provision is discounted where material and the unwinding of the discount is shown as a finance cost in the profit and loss account. At the time of establishing the provision, a corresponding asset is capitalised and depreciated over future production from the mine to which it relates.

The provision is reviewed on an annual basis for changes in cost estimates or lives of operations.

Deferred taxation

Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date, with the following exceptions:

- where fixed assets have been revalued, provision is made for deferred tax only to the extent that, at the balance sheet date, there is a binding agreement to dispose of the assets concerned. However, no provision is made where, on the basis of all available evidence at the balance sheet date, it is more likely than not that the taxable gain will be rolled over into replacement assets and charged to tax only where the replacement assets are sold;
- provision is made for deferred tax that would arise on remittance of the retained earnings of overseas subsidiaries only to the extent that, at the balance sheet date, dividends have been accrued as receivable; and
- deferred tax assets are recognised only to the extent that the directors consider that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Leasing and hire purchase commitments

Assets held under finance leases, which are leases where substantially all the risks and rewards of ownership of the asset have passed to the Xstrata AG Group, and hire purchase contracts, are capitalised in the balance sheet and are depreciated over their useful lives. The capital elements of future obligations under leases and hire purchase contracts are included as liabilities in the balance sheet. The interest elements of the rental obligations are charged in the profit and loss account over the periods of the leases and hire purchase contracts and represent a constant proportion of the balance of capital repayments outstanding.

Rentals payable under operating leases are charged in the profit and loss account on a straight-line basis over the lease term.

Pensions and other post-retirement obligations

The Xstrata AG Group operates a number of pension plans, the assets of which are (where funded) generally held in separate trustee-administered funds. The pension plans are generally funded by payments from employees and by the relevant Xstrata AG Group companies, taking account of the recommendation of independent qualified actuaries. The Xstrata AG Group's contributions to its defined contribution pension plans are charged to the profit and loss account in the year to which they relate. For its defined benefit plans the estimated cost of providing post-retirement benefits is charged against profits on a systematic basis over the working lives of employees.

Derivative instruments

The Xstrata AG Group uses forward foreign currency contracts to reduce exposure to foreign exchange rates. The Xstrata AG Group considers that its derivative instruments qualify for hedge accounting when certain criteria are met.

The criteria for forward foreign currency contracts are:

- the instrument must be related to a foreign currency asset or liability that is probable and whose characteristics have been identified;
- it must involve the same currency as the hedged item; and
- it must reduce the risk of foreign currency exchange movements on the operations.

The rates under such contracts are used to record the hedged item. As a result, gains and losses are offset against the foreign exchange gains and losses on the related financial assets and liabilities, or where the instrument is used to hedge a committed, or probable, future transaction, are deferred until the transaction occurs.

The Xstrata AG Group uses zinc futures to reduce the effect of market price fluctuations on the sale of zinc. The futures are matched to purchases on acquisition of the zinc concentrate, and typically expire in 3 to 4 months. Gains and losses on the futures are recognised in the same period as the sale of the zinc occurs.

Own shares

Investment in own shares, which are used to hedge exposure under options granted to employees, are included at cost less any permanent diminution in value.

Share options

Xstrata AG has a share option plan under which it grants options to purchase its shares to directors, eligible officers and key employees of the Xstrata AG Group. In accordance with Urgent Issues Task Force Abstract Number 17 (UITF 17), the difference, if any, between the fair value of shares and the exercise price of share options, on grant of a share option is charged to the profit and loss account spread over the performance period, if any, or if not over the period until the employees become unconditionally entitled to the shares.

Xstrata AG purchases from time to time its shares to hedge its exposure under the options granted. As shares are purchased, the amount of consideration paid is recognised as a fixed asset.

Capital instruments

Shares are included in shareholders' funds. Other instruments are classified as liabilities if they contain an obligation to transfer economic benefit and, if not, they are not included in shareholders' funds. The finance cost recognised in the profit and loss account in respect of capital instruments other than equity shares is allocated to periods over the term of the instrument at a constant rate on the carrying value.

2. *Turnover and Segmental Analysis*

Turnover represents the amounts derived from the provision of commodities which fall within the Xstrata AG Group's ordinary activities, stated net of applicable sales taxes.

The Xstrata AG Group operates in two principal areas of activity, that of mining and extraction of metals and minerals, and forestry. Operations discontinued during the period under review were in the coal, oil and gas and aluminium industries.

The Xstrata AG Group's operations are located within four distinct geographical markets, the Americas, Africa, Europe and Australasia.

The discontinued operations are Xstrata Coal Pty Limited and Winarch Pty Limited, sold to Enex Coal Pty Ltd on 1 January 2001, Süddelektra Argentina SA, sold to Perez Companco SA as of 1 January 2000, and Xstrata Aluminum Corporation, sold to Century Aluminum, Inc. Corporation as of 1 April 2000.

Turnover, group profit on ordinary activities before tax and net assets are analysed by area of activity as follows:

Year ended 31 December 2001

	Metals and minerals				Forestry	
	Ferrochrome US$000	Vanadium US$000	Zinc US$000	Magnesium US$000	Pulpwood US$000	Total US$000
TURNOVER						
Continuing operations	257,659	63,498	266,634	25	25,787	**613,603**
Turnover of the following acquisitions are included in the above:						
Asturiana	–	–	266,634	–	–	**266,634**
PROFIT						
Continuing operations	59,318	3,140	44,798	(5,040)	561	**102,777**
Common costs and income						**(10,331)**
Operating profit						**92,446**
Unallocated non-operating exceptional items						**(1,488)**
Impairment of vanadium assets	–	(45,500)	–	–	–	**(45,500)**
Net interest and income from investments						**(21,554)**
Profit on ordinary activities before taxation						**23,904**
Operating profit of the following acquisitions are included in the above:						
Asturiana	–	–	44,798	–	–	**44,798**
NET ASSETS						
Continuing operations	187,990	106,642	548,009	25,344	21,782	**889,767**
Unallocated net assets						**(348,651)**
						541,116
Minority interest						**(1,994)**
Total net assets						**539,122**
Net assets of the following acquisitions are included in the above:						
Asturiana	–	–	548,009	–	–	548,009

Year ended 31 December 2000

	Metals and minerals				Energy		Forestry	Total
	Ferrochrome US$000	Vanadium US$000	Aluminium US$000	Magnesium US$000	Oil & gas US$000	Coal US$000	Pulpwood US$000	US$000
TURNOVER								
Continuing operations	419,334	68,474	–	–	–	–	56,632	**544,440**
Discontinued operations	–	–	18,081	–	–	35,350	–	**53,431**
	419,334	**68,474**	**18,081**	**–**	**–**	**35,350**	**56,632**	**597,871**
PROFIT								
Continuing operations	114,944	20,561	–	–	–	–	2,373	**137,878**
Discontinued operations	–	–	1,036	–	–	(3,608)	–	**(2,572)**
	114,944	20,561	1,036	–	–	(3,608)	2,373	**135,306**
Common costs and income								**(4,743)**
Operating profit								**130,563**
Unallocated non-operating exceptional items								**57,804**
Net interest and income from investments								**(11,498)**
Profit on ordinary activities before taxation								**176,869**
NET ASSETS								
Continuing operations	339,336	205,471	–	3,725	–	–	31,510	**580,042**
Discontinued operations	–	–	–	–	–	39,862	–	**39,862**
	339,336	205,471	–	3,725	–	39,862	31,510	**619,904**
Unallocated net assets								**54,473**
								674,377
Minority interest								**(41)**
Total net assets								**674,336**

Year ended 31 December 1999

	Metals and minerals				Energy		Forestry	Total
	Ferrochrome	Vanadium	Aluminium	Magnesium	Oil & gas	Coal	Pulpwood	
	US$000	US$000	US$000	US$000	US$000	US$000	US$000	US$000
TURNOVER								
Continuing operations	359,003	101,542	–	–	–	–	59,541	**520,086**
Discontinued operations	–	–	65,946	–	39,650	36,333	–	**141,929**
	359,003	101,542	65,946	–	39,650	36,333	59,541	**662,015**
PROFIT								
Continuing operations	50,907	45,344	–	–	–	–	4,218	**100,469**
Discontinued operations	–	–	(3,182)	–	8,091	(3,745)	–	**1,164**
	50,907	45,344	(3,182)	–	8,091	(3,745)	4,218	**101,633**
Common costs and income								**(6,454)**
Operating profit								**95,179**
Unallocated non-operating exceptional items								**(3,460)**
Net interest and income from investments								**(14,575)**
Profit on ordinary activities before taxation								**77,144**
NET ASSETS								
Continuing operations	334,498	185,469	–	–	–	–	30,311	**550,278**
Discontinued operations	–	–	84,548	–	53,929	49,126	–	**187,603**
	334,498	185,469	84,548	–	53,929	49,126	30,311	**737,881**
Unallocated net assets								**(108,412)**
								629,469
Minority interest								**(43)**
Total net assets								**629,426**

Turnover, group profit on ordinary activities before tax and net assets are analysed by geographical origin, and turnover is further analysed by geographical destination as follows:

Year ended 31 December 2001

	Americas US$000	Africa US$000	Europe US$000	Australasia US$000	Total US$000
TURNOVER					
Turnover by origin					
Continuing operations	25,812	310,233	266,634	10,924	**613,603**
Turnover of the following acquisitions are included in the above:					
Asturiana	–	–	266,634	–	**266,634**
Turnover by destination					
Continuing operations	41,256	16,592	450,142	105,613	**613,603**
PROFIT by origin					
Continuing operations	(4,479)	77,923	44,798	(15,465)	**102,777**
Common costs and income					**(10,331)**
Operating Profit					**92,446**
Unallocated non-operating exceptional items					**(1,488)**
Impairment of vanadium assets	–	–	–	(45,500)	**(45,500)**
Net interest and income from investments					**(21,554)**
Profit on ordinary activities before taxation					**23,904**
Operating profit of the following acquisitions are included in the above:					
Asturiana	–	–	44,798	–	**44,798**
NET ASSETS by origin					
Continuing operations	47,126	265,471	548,009	29,161	**889,767**
Unallocated net assets					**(348,651)**
					541,116
Minority interest					**(1,994)**
Total net assets					**539,122**
Net assets of the following acquisitions are included in the above:					
Asturiana	–	–	548,009	–	**548,009**

Year ended 31 December 2000

	Americas US$000	Africa US$000	Europe US$000	Australasia US$000	Total US$000
TURNOVER					
Turnover by origin					
Continuing operations:	56,632	481,009	–	6,799	**544,440**
Discontinued operations	18,081	–	–	35,350	**53,431**
	74,713	481,009	–	42,149	**597,871**
Turnover by destination					
Continuing operations	118,715	8,535	238,712	178,478	**544,440**
Discontinued operations	18,081	–	155	35,195	**53,431**
	136,796	8,535	238,867	213,673	**597,871**
PROFIT by origin					
Continuing operations	2,373	135,543	–	(38)	**137,878**
Discontinued operations	1,036	–	–	(3,608)	**(2,572)**
	3,409	135,543	–	(3,646)	**135,306**
Common costs and income					**(4,743)**
Operating Profit					**130,563**
Profit on disposal of fixed assets					**57,804**
Net interest and income from investments					**(11,498)**
Profit on ordinary activities before taxation					**176,869**
NET ASSETS by origin					
Net assets by segment:					
Continuing operations	35,235	465,107	–	79,700	**580,042**
Discontinued operations	–	–	–	39,862	**39,862**
	35,235	465,107	–	119,562	**619,904**
Unallocated net assets					**54,473**
Minority interest					**(41)**
Total net assets					**674,336**

Year ended 31 December 1999

	Americas US$000	Africa US$000	Europe US$000	Australasia US$000	Total US$000
TURNOVER					
Turnover by origin					
Continuing operations:	59,541	460,545	–	–	**520,086**
Discontinued operations	105,596	–	–	36,333	**141,929**
	165,137	460,545	–	36,333	**662,015**
Turnover by destination					
Continuing operations:	96,903	7,683	197,687	217,813	**520,086**
Discontinued operations	105,596	–	–	36,333	**141,929**
	202,499	7,683	197,687	254,146	**662,015**
PROFIT by origin					
Continuing operations	4,218	96,251	–	–	**100,469**
Discontinued operations	4,909	–	–	(3,745)	**1,164**
	9,127	96,251	–	(3,745)	**101,633**
Common costs and income					**(6,454)**
Operating profit					**95,179**
Non operating exceptional items					**(3,460)**
Net interest and income from investments					**(14,575)**
Profit on ordinary activities before taxation					**77,144**
NET ASSETS by origin					
Continuing operations	30,311	457,731	–	62,236	**550,278**
Discontinued operations	138,477	–	–	49,126	**187,603**
	168,788	457,731	–	111,362	**737,881**
Unallocated net assets					**(108,412)**
					629,469
Minority interest					**(43)**
Total net assets					**629,426**

3. Net Operating Costs

	Year ended 31 December 1999			Year ended 31 December 2000			Year ended 31 December 2001		
	Continuing US$000	Discontinued US$000	Total US$000	Continuing US$000	Discontinued US$000	Total US$000	Continuing US$000	Discontinued US$000	Total US$000
Cost of sales	313,491	118,749	432,240	298,054	46,912	344,966	**437,031**	–	**437,031**
Distribution costs	88,640	14,366	103,006	87,938	6,275	94,213	**64,702**	–	**64,702**
Administrative expenses	32,938	8,301	41,239	36,465	2,815	39,280	**24,815**	–	**24,815**
Other operating income	(9,649)	–	(9,649)	(9,367)	(1,784)	(11,151)	**(5,391)**	–	**(5,391)**
Net Operating Costs	425,420	141,416	566,836	413,090	54,218	467,308	**521,157**	–	**521,157**
Gross profit	206,595	23,180	229,775	246,386	6,519	252,905	**176,572**	–	**176,572**

4. Operating Profit

This is stated after charging/(crediting):

	Year ended 31 December		
	1999 US$000	2000 US$000	2001 US$000
Auditors' remuneration – audit services	331	382	**450**
Depreciation of owned assets and amortisation of intangible assets	40,009	21,658	**35,998**
Operating lease rentals – land and buildings	393	289	**354**
– plant and machinery	–	–	**221**

5. Directors' Emoluments

Directors' remuneration and pension entitlements

Emoluments of Directors

	Shares granted 2001 US$000	Cash 2001 US$000	Taxable Benefits 2001 US$000	Pension Contributions 2001 US$000	Total 2001 US$000	Total 2000 US$000	Total 1999 US$000
W Strothotte	57	–	4	–	**61**	183	91
R Domeniconi	–	–	55	2	**57**	160	87
D Sauter	–	–	–	–	**–**	162	88
R MacDonnell	46	–	9	2	**57**	134	68
P Hazen	46	–	9	2	**57**	134	–
D Issroff	57	–	4	–	**61**	183	–
T Schmidheiny	–	–	–	–	**–**	160	87
F Roux	14	19	22	2	**57**	134	68
E Sarasin	–	–	–	–	**–**	–	87
	220	19	103	8	**350**	1,250	576

Share Options of Directors

Members of the board of directors are entitled to certain benefits as provided for by the Directors' Compensation Scheme under which the annual directors' fees are a function of the Xstrata AG Group's net earnings. The directors have to take a minimum of 50% of the fees in shares, stock options in Xstrata AG, or a combination thereof, with the balance in cash. Directors purchased in total 3,625 shares (2000: 3,129; 1999: 1,040).

Details of the individual Executive Share Options, held by the directors at 31 December, are as follows.

	1997	1998	Scheme 1999	2000	2001
	Number	Number	Number	Number	Number
W Strothotte	–	–	–	–	–
R Domeniconi	–	1,600	1,315	–	2,404
D Sauter	–	10,015	–	2,558	–
R MacDonnell	–	–	–	–	–
P Hazen	–	–	–	–	–
D Issroff	–	–	–	–	–
T Schmidheiny	1,110	1,600	1,865	1,010	–
F Roux	–	–	–	–	620
E Sarasin	1,110	1,600	1,865	–	–

Options have been granted in accordance with the information above. No options have been cancelled during the period from 1 January 1999 to 31 December 2001. During 2000 R Domeniconi exercised 750 options from the 1997 scheme, generating a gain of CHF 121,800 (US$ 76,067).

1997: Granted in respect of the year ended 31 December 1997.
Exercise Price: CHF 208.80
Exercise Period: 5 September 1999 – 4 September 2002

1998: Granted in respect of the year ended 31 December 1998.
Exercise Price: CHF 182.08
Exercise Period: 17 March 2002 – 31 January 2004

1999: Granted in respect of the year ended 31 December 1999.
Exercise Price: CHF 336.85
Exercise Period: 1 February 2002 – 31 January 2005

2000: Granted in respect of the year ended 31 December 2000.
Exercise Price: CHF 432.45
Exercise Period: 1 February 2003 – 31 January 2006

2001: Granted in respect of the year ended 31 December 2001:
Exercise Price: CHF 226.55
Exercise Period: 1 February 2004 – 31 January 2007

The market price of Xstrata AG's shares on 31 December 2001 was CHF204.25 per share (2000 – CHF472.00; 1999 – CHF334.00) and the high and low share prices during the year were CHF448.00 and CHF126.00, respectively. Xstrata AG's average share price over the 10 business days prior to the date of grant of options during 2001 was CHF432.45.

The interests of the directors to subscribe for or acquire ordinary shares have not changed since the year end.

6. Staff Costs

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Wages and salaries	39,798	62,976	**73,633**
Social security costs	5,511	5,562	**11,789**
Other pension costs	122	575	**135**
Post-retirement benefits other than pensions	151	142	**222**
	45,582	69,255	**85,779**

The average monthly number of employees during the year was made up as follows:

	Year ended 31 December 1999	Year ended 31 December 2000	Year ended 31 December 2001
Metals and minerals			
Ferrochrome	2,687	3,116	**3,341**
Vanadium	634	641	**670**
Magnesium	–	2	**38**
Zinc	–	–	**1,301**
Energy			
Coal	160	147	**–**
Forestry			
Pulpwood	88	79	**13**
Other	15	15	**14**
	3,584	4,000	**5,377**

7. Interest Payable and Similar Charges

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Bank loans and overdrafts	14,997	13,441	**23,067**
Other loans	2,409	627	**623**
	17,406	14,068	**23,690**

Where funds have been borrowed to finance specific capital projects the finance and interest charges are capitalised. Interest of US$0.8 million (2000: US$6.9 million; 1999: US$5.8 million) was capitalised and is being amortised based on the estimated life of reserves/plantation using the unit of production method.

8. Tax on Profit on Ordinary Activities

Xstrata AG is incorporated in Switzerland but operates in various countries with different tax regimes. Furthermore, the Xstrata AG Group's earnings before tax provisions arise primarily outside Switzerland. Consequently, the weighted average statutory tax rate may vary from period to period reflecting taxable earnings arising in different tax jurisdictions.

The taxation (charge)/credit is made up as follows:

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Current tax			
Foreign tax	(2,322)	(13,273)	**(1,440)**
Deferred tax:			
Originating and reversing timing differences	3,166	(8,341)	**(9,195)**
Effect of change in tax rate	5,787	–	**–**
Total tax (charge)/credit on profit on ordinary activities	6,631	(21,614)	**(10,635)**

The statutory tax provision at the weighted average rate is generally calculated on the basis of pre-tax earnings or losses in each country and the applicable statutory tax rates. The difference between the effective provision for income tax and the statutory tax provision at the weighted average tax rate is reconciled as follows:

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Statutory provision for tax at weighted average rate*	(18,658)	(28,653)	**(6,574)**
Permanent differences	18,547	8,661	**(4,061)**
Timing differences	(8,953)	8,341	**9,195**
Reduction in tax rate	5,787	–	**–**
Other	955	(1,622)	**–**
Effective provision for tax	(2,322)	(13,273)	**(1,440)**

* Weighted average rates applied by period are: 1999 – 24.2%, 2000 – 16.2%, 2001 – 27.5%.

Deferred tax assets and liabilities for 2001, 2000 and 1999 reflect the impact of timing differences between amounts of assets and liabilities for financial reporting purposes and the amounts of such assets and liabilities as measured for tax purposes.

The Xstrata AG Group's balance sheet as at 31 December 2001 contains assets valued above their historical cost. In accordance with FRS 19, no deferred tax has been recognised in respect of such revaluations. If these assets were to be sold for the revalued amount then, in the absence of any relief, additional tax of US$6.9 million would be payable.

9. Earnings per Ordinary Share

The calculation of earnings, and fully diluted earnings, per ordinary share is based on earnings of US$11.3 million in 2001 (2000 – US$155.3 million; 1999 – US$84.0 million) and on 5,779,211 (2000 – 5,769,547; 1999 – 5,788,405) ordinary shares, being the weighted average number of ordinary shares in issue during the year. There is no material difference between basic and diluted earnings per share.

10. Tangible Fixed Assets

	Capital work in progress and other US$000	Plantations US$000	Mineral properties & mine development expenditure US$000	Land and plant US$000	Total US$000
Cost:					
At 1 January 2000	35,021	24,972	501,436	457,221	**1,018,650**
Additions	33,950	4,705	8,507	4,889	**52,051**
Reclassification	5,240	(7,730)	(14,971)	17,461	**–**
Disposals	(677)	–	(252)	(3,105)	**(4,034)**
Acquired / (disposed) of with operations	(2,660)	–	(130,124)	(76,312)	**(209,096)**
Exchange adjustment	(11,754)	(719)	(67,502)	(59,676)	**(139,651)**
At 31 December 2000	59,120	21,228	297,094	340,478	**717,920**
Additions	29,020	3,372	542	96,719	**129,653**
Disposals	(1,123)	(1,206)	–	(2,572)	**(4,901)**
Reclassification	(35,085)		6,365	29,082	**362**
Acquisition of subsidiary undertaking	12,912	–	985	328,257	**342,154**
Impairment	–	(1,219)	(23,411)	(24,184)	**(48,814)**
Exchange adjustment	(21,251)	(2,594)	(106,519)	(142,681)	**(273,045)**
At 31 December 2001	**43,593**	**19,581**	**175,056**	**625,099**	**863,329**
Depreciation:					
At 1 January 2000	5,937	3,020	106,534	96,866	**212,357**
Provided during the year	5,532	–	5,757	10,550	**21,839**
Reclassification	3,020	(3,020)	–	–	**–**
Disposals	(501)	–	(34)	(937)	**(1,472)**
Acquired / (disposed) of with operations	–	–	(81,564)	(18,716)	**(100,280)**
Exchange adjustment	(916)	–	(4,501)	(13,343)	**(18,760)**
At 31 December 2000	13,072	–	26,192	74,420	**113,684**
Provided during the year	3,172	–	7,834	28,760	**39,766**
Disposals	(858)	–	–	(828)	**(1,686)**
Reclassification	244	–	–	–	**244**
Impairment adjustment	–	–	(819)	(870)	**(1,689)**
Exchange adjustment	(6,725)	–	(13,066)	(38,879)	**(58,670)**
At 31 December 2001	**8,905**	**–**	**20,141**	**62,603**	**91,649**
Net book value at 31 December 2001	**34,688**	**19,581**	**154,915**	**562,496**	**771,680**
Net book value at 31 December 2000	46,048	21,228	270,902	266,058	604,236
Net book value at 1 January 2000	29,084	21,952	394,902	360,355	806,293

Mineral properties and mine development expenditure and plantations, include capitalised interest of US$0.8 million (2000: US$ 6.9 million) and are amortised based on the estimated life of reserves/plantation using the unit of production method. Land and plant includes land amounting to US$24.7 million (2000: US$ 17.2 million).

Due to the depressed market conditions and operational difficulties, an adjustment was made to reflect the difference between the carrying value and the recoverable amount of the property, plant and equipment at the Windimurra vanadium operations in Australia amounting to US$45,500,000. In assessing the recoverable amount, the relevant expected future cash flows arising from the Windimurra operations have been discounted to their present value using a 9.0% discount value.

11. Intangible Fixed Assets

	Licences concessions trademarks US$000	Goodwill US$000	Borrowing costs US$000	Other US$000	Total US$000
Cost:					
At 1 January 2000	637	1,526	–	505	**2,668**
Reclassifications	(604)	(1,750)	–	2,354	**–**
Additions	–	196	1,938	1,764	**3,898**
Disposals	–	(195)	–	–	**(195)**
Translation Adjustments	(1)	(2)	–	(11)	**(14)**
At 31 December 2000	32	(225)	1,938	4,612	**6,357**
Reclassification to tangible fixed assets	–	–	–	(362)	**(362)**
Write off previously capitalised formation costs	–	–	–	(114)	**(114)**
Additions	–	–	7,636	3,895	**11,531**
Acquisitions	1,695	112,120	–	2,042	**115,857**
Translation Adjustments	(36)	(457)	–	(393)	**(886)**
At 31 December 2001	**1,691**	**111,438**	**9,574**	**9,680**	**132,383**
Accumulated Amortisation:					
At 1 January 2000	156	152	–	–	**308**
Reclassification	(149)	(350)	–	499	**–**
Amortisation	2	5	194	487	**688**
Translation Adjustments	–	(4)	–	–	**(4)**
At 31 December 2000	9	(197)	194	986	**992**
Reclassification to tangible fixed assets	–	–	–	(244)	**(244)**
Amortisation	–	3,995	117	2,493	**6,605**
Translation adjustments	(9)	(74)	–	(47)	**(130)**
At 31 December 2001	–	3,724	311	3,188	**7,223**
Net book value at 31 December 2001	**1,691**	**107,714**	**9,263**	**6,492**	**125,160**
Net book value at 31 December 2000	23	(28)	1,744	3,626	5,365
Net book value at 1 January 2000	481	1,374	–	505	2,360

Goodwill is amortised over 20 years whilst borrowing costs are amortised over the life of the financing facility. Other intangible assets comprise principally acquisition and development costs that are amortised over the commercial life of a project.

12. Own Shares

	Number	US$000
Shares held at 31 December 1999	144,420	21,026
New shares acquired	50,005	12,944
Shares sold	(71,955)	(10,457)
Shares held at 31 December 2000	122,470	23,513
New shares acquired	4,169	982
Disposal of shares	(6,596)	(1,554)
At 31 December 2001	**120,043**	**22,941**

13. Other Long-Term Assets

		At 31 December 2000 US$000	At 31 December 2001 US$000
Equity investment in Mount Thorley Coal Loading Ltd, Australia (13.90%)	Unlisted	293	-
Equity investment in Newcastle Coal Shippers Pty Ltd, Australia (0.56%)	Unlisted	118	-
Equity investment in Compantia Paraibuna de Metais, Brazil (0.188%)	Listed	-	**55**
Other		555	**7,714**
		966	**7,769**
Loans		3,958	**5,313**
		4,924	**13,082**

Loans included within fixed assets are primarily interest bearing investments, not repayable within one year.

The 'other' fixed asset of US$7.7 million in 2001 includes funds due from the Reocin regional government (Spain) for a discounted value of US$7.0 million, payable upon the closure of the Reocin zinc mine.

Details of the principle investments as at 31 December in which the Xstrata AG Group or the company holds 20% or more of the nominal value of any class of return share capital are as follows:

	Country of incorporation		Proportion of voting rights and shares held 2000	2001
Metals and minerals (mining and processing)				
Xstrata South Africa (Pty) Ltd	South Africa	Ordinary	100%	100%
Xstrata Zinc BV	Holland	Ordinary	-	100%
Xstrata Spain S.L.	Spain	Ordinary	-	100%
Asturiana de Zinc S.L	Spain	Ordinary	-	98.3%
Xstrata Windimurra Pty Ltd	Australia	Ordinary	100%	100%
Vanadium Australia Pty Ltd *	Australia	Ordinary	100%	100%
Windimurra Limited*	Australia	Ordinary	-	100%
Xstrata Magnesium AG	Switzerland	Ordinary	100%	100%
Xstrata Magnesium Corp *	USA	Ordinary	100%	100%
Energy (coal mining)				
Xstrata Coal Pty Ltd	Australia	Ordinary	100%	-
United Collieries Pty Ltd*	Australia	Ordinary	95%	-
Forestry (plantation)				
Xstrata Forestry AG (dissolved on 30 June2001)	Switzerland	Ordinary	100%	-
Forestal del Sur Ltda* (sold 1 July 2001)	Chile	Ordinary	100%	-
Forestal los Lagos SA	Chile	Ordinary	100%	100%
Other				
Xstrata Marketing Corporation A.V.V.	Aruba	Ordinary	100%	100%
Xstrata Capital Corporation A.V.V.	Aruba	Ordinary	100%	100%

* Held by subsidiary undertakings

14. Acquisitions and Disposals

Xstrata Magnesium Corporation

Xstrata AG incorporated Xstrata Magnesium Corporation and Xstrata Magnesium AG on 6 July 2000 and 9 August 2000 respectively, in connection with the construction of a magnesium scrap recycling facility in the United States. Following the completion of the feasibility study, Xstrata AG approved a US$31.3 million expenditure plan for the construction of the facility.

14. Acquisitions and Disposals (continued)

Xstrata Coal Pty Ltd

On 1 January 2001, the Xstrata AG Group disposed of Xstrata Coal Pty Ltd. The disposal is analysed as follows:

	US$000
Net assets disposed of:	
Investments	411
Non-current loans	–
Fixed assets	64,335
Stocks	1,160
Debtors	3,112
Cash and equivalents	882
Current liabilities	(7,702)
Net assets disposed of	62,198
Additional funding during 2001	1,974
	64,172
Loss on disposal	(172)
	64,000
Satisfied by:	
Cash	64,000

Asturiana

On 3 May 2001, the Xstrata AG Group acquired 95.5% of Asturiana de Zinc, S.A. ("Asturiana") for a consideration of US$454 million. Goodwill arising on the acquisition of Asturiana of US$112 million has been capitalised on the balance sheet. The investment in Asturiana has been included in the Group's balance sheet at its fair value at the date of acquisition.

Net assets at date of acquisition

	Book value US$000	Adjustments US$000	Fair value US$000
Tangible fixed assets	325,113	114,761	439,874
Stocks	62,521	–	62,521
Debtors	56,764	–	56,764
Cash	20,028	–	20,028
Creditors due within one year	(129,304)	–	(129,304)
Creditors due in more than one year	(92,330)	–	(92,330)
Net assets	242,792	114,761	357,553
Xstrata AG Group share of net assets acquired 95.5%			341,463
Goodwill arising on acquisition			112,120
			453,583
Discharged by:			
Cash paid			453,583

The adjustment reflects an increase in the value of plant and machinery to its depreciated replacement cost.

During the year ended 31 December 2001 Asturiana contributed US$58.1 million to the Xstrata AG Group's net operating cash flows, paid US$1.6 million in respect of net returns on investments and servicing of finance, paid US$0.2 million in respect of taxation and utilised US$69.5 million for capital expenditure.

Asturiana earned a profit after tax of US$43.4 million in the the year ended 31 December 2001 of which US$11.2 million arose in the period from 1 January 2001 to 30 April 2001. The summarised profit and loss account for the period from 1 January 2001 to the date of acquisition is as follows:

	US$000
Turnover	116,683
Operating profit	24,951
Profit before tax	17,178
Taxation	(6,014)
Profit for the four months ended 30 April 2001	11,164

There were no recognised gains and losses in the four months ended 30 April 2001 other than the profit of US$11.2 million above.

14. Acquisitions and Disposals (continued)

Forestal del Sur Ltda

On 1 July 2001 Forestal del Sur Ltda was disposed of to its management for US$4.0 million whilst its subsidiary, Forestal Los Lagos SA, was retained within the Xstrata AG Group. As a result Xstrata AG received US$3.3 million in November 2001, and the balance of US$0.7 million is due in October 2002. Xstrata AG made a loss on disposal of US$1.8 million.

The disposal is analysed as follows:

	US$000
Net assets disposed of:	
Fixed assets	3,942
Debtors	2,856
Stock	8,059
Cash	1,690
Current liabilities	(10,105)
Non-current liabilities	(660)
	5,782
Loss on disposal	(1,782)
	4,000
Satisfied by:	
Cash payment	4,000

15. Stocks

	At 31 December 2000 US$000	At 31 December 2001 US$000
Raw materials and consumables	34,120	**60,288**
Work in progress	91	**10,415**
Finished goods and goods for resale	80,626	**74,065**
	114,837	**144,768**

The difference between purchase price or production cost of stocks and their replacement cost is not material.

16. Debtors

	At 31 December 2000 US$000	At 31 December 2001 US$000
Trade debtors	119,236	**132,926**
Advances and deposits	987	**508**
Prepayments and accrued income	1,142	**4,043**
Other debtors	4,161	**28,033**
Recoverable sales tax and prepaid income tax	7,648	**22,660**
	133,174	**188,170**

17. Cash and Short-Term Deposits

	At 31 December 2000 US$000	At 31 December 2001 US$000
Cash at bank and in hand	7,474	**16,458**
Short-term deposits	37,262	**29,408**
	44,736	**45,866**

18. Creditors: amounts falling due within one year

	At 31 December 2000 US$000	At 31 December 2001 US$000
Current instalments due on loans from third parties	–	78,994
Bank overdraft	9,542	1,349
Trade creditors	73,182	102,110
Corporation tax	14,378	2,675
Other creditors	19,774	36,598
	116,876	221,726

The bank overdraft is secured by a floating charge over certain of the Xstrata AG Group's assets.

Xstrata AG Group maintains various credit lines with a number of banks, US dollar current borrowings bear interest at a weighted average rate of 0.8% (2000: 0.8%) per annum above the borrowing base rate. South African rand current borrowings bear interest at prime rate, which averaged 13.8% per annum during 2001 (2000: 14.6%). Total unused current credit lines at 31 December 2001 amounted to US$120.8 million (31 December 2000: US$150.6 million).

19. Creditors: amounts falling due after more than one year

	At 31 December 2000 US$000	At 31 December 2001 US$000
Loans	34,502	421,990

Total unused non-current credit lines at 31 December 2001 and 31 December 2000 amounted to US$56.4 million and US$302.5 million, respectively.

20. Loans

Non-current borrowings fall due as follows:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Amounts falling due:		
Within one year	–	78,994
Between one and five years	2,500	414,990
In five years or more	32,002	7,000
	34,502	500,984
Less: included in creditors: amounts falling due within one year	–	78,994
	34,502	421,990

Details of loans not wholly repayable within five years are as follows:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Variable rate secured loan of ZAR 170 million	22,502	–
Variable rate (LIBOR +1.75%) secured loan	9,500	7,000

The long-term loans are secured by fixed charges over various of the Xstrata AG Group's properties.

On 12 April 2001, Xstrata AG entered into a Euro 600 million term loan and revolving credit facility comprising a Euro 250 million term loan tranche with a one year repayment grace period and five equal semi-annual repayments thereafter, and a Euro 350 million revolving credit tranche with a four year maturity.

The proceeds of the term loan and revolving credit facility were used to finance the acquisition of Asturiana de Zinc, S.A. and for general corporate purposes. Interest is payable based on LIBOR plus a margin ranging from 65 to 125 basis points, depending on certain financial covenants. During the year, the borrowing margin has been fixed at 150 bonus points above LIBOR.

21. Obligations Under Leases

Annual commitments under non-cancellable operating leases are as follows:

	Land and buildings		Other	
	At 31 December 2000 US$000	At 31 December 2001 US$000	At 31 December 2000 US$000	At 31 December 2001 US$000
Operating leases which expire:				
Within one year	–	–	89	425
In two to five years	187	184	765	6,104
In over five years	–	–	–	2,600
	187	**184**	854	**9,129**

22. Provisions for Liabilities and Charges

	Post-retirement benefits US$000	Provision for rehabilitation costs US$000	Deferred taxation US$000	Other US$000	Total US$000
At 1 January 2000	6,033	1,435	109,854	5,899	123,221
Arising during the year	–	400	8,341	272	9,013
Arising on the acquisition or disposal of subsidiary undertakings	–	(471)	(19,185)	(5,876)	(25,532)
Utilised and foreign exchange adjustments	(1,180)	(492)	–	–	(1,672)
At 31 December 2000	4,853	872	99,010	295	105,030
Arising on the acquisition or disposal of subsidiary undertakings	17,732	13,977	5,180	2,314	39,203
Arising during the year	–	246	9,195	14,296	23,737
Utilised and foreign exchange adjustments	(3,831)	(327)	(36,845)	(132)	(41,135)
At 31 December 2001	**18,754**	**14,768**	**76,540**	**16,773**	**126,835**

Post-retirement benefits

The Xstrata AG Group provides post-retirement benefits for a number of its employees. Entitlement to these benefits is dependent upon the employee remaining in service until retirement age, and is subject to periodic review. The Xstrata AG Group recognises the estimated liability on an accrual basis over the working life of the eligible employees.

Other

Primarily relates to the acquisition of mining rights in South Africa. The provision represents the net present value of payments to the vendor over the course of the agreement (expiration in 2016).

Deferred tax

Deferred taxation comprises:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Capital allowances in advance of depreciation	110,169	**84,754**
Tax losses	(2,499)	**(15,751)**
Other timing differences	(8,660)	**7,537**
	99,010	**76,540**

23. Share Capital

Authorised

	At 31 December 2000 thousands	At 31 December 2001 thousands	At 31 December 2000 US$000	At 31 December 2001 US$000
Ordinary shares of CHF10 each	5,900	**5,900**	41,569	**41,569**

Allotted, called up and fully paid

	At 31 December 2000 thousands	At 31 December 2001 thousands	At 31 December 2000 US$000	At 31 December 2001 US$000
Ordinary shares of CHF10 each	5,900	**5,900**	41,569	**41,569**

During the year ended 31 December 2000 the number of shares issued was increased by way of a 1:5 share split on the basis of five shares, each having a value of CHF 10, for one bearer share having a value of CHF 50.

At the Extraordinary General Meeting of shareholders on 6 March 2001, approval to increase the authorised share capital of CHF29,500,000 par value was granted to the board of directors. The board of directors was also authorised to increase the share capital until 5 March 2003 by issuing 2,950,000 bearer shares with a par value of CHF10 each to be fully paid up. Increases in partial amounts are permitted. The board of directors will determine the applicable issuing price, the type of contributions to be made for the new shares and the time from which the new shares given rights to dividends. The shares are intended for placement with the existing shareholders, however, under certain conditions, the board of directors is entitled to exclude the subscription rights of the shareholders for up to 10% of the shares issued as of the date of the capital issuance.

24. Reserves

	Share capital US$000	Share premium account US$000	Other reserves US$000	Profit and loss account US$000	Total US$000
At 1 January 1999	41,569	267,365	23,173	231,531	563,638
Exchange differences on retranslation of net assets of subsidiary undertakings	–	–	–	(18,256)	(18,256)
Reclassifications	–	–	3,281	(3,281)	–
Retained profit for the year	–	–	–	84,044	84,044
At 31 December 1999	41,569	267,365	26,454	294,038	629,426
Exchange differences on retranslation of net assets of subsidiary undertakings	–	–	–	(110,345)	(110,345)
Reclassifications	–	–	63	(63)	–
Retained profit for the year	–	–	–	155,255	155,255
At 1 January 2001	41,569	267,365	26,517	338,885	674,336
Exchange differences on retranslation of net assets of subsidiary undertakings	–	–	–	(146,467)	(146,467)
Retained profit for the year	–	–	–	11,253	11,253
At 31 December 2001	**41,569**	**267,365**	**26,517**	**203,671**	**539,122**

25. Notes to the Statement of Cash Flows

(a) Reconciliation of operating profit to net cash inflow from operating activities

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Operating profit	95,179	130,563	**92,446**
Depreciation and amortisation	40,009	21,658	**35,998**
Increase in debtors	(25,633)	2,698	**(3,893)**
Increase in stocks	3,258	(5,027)	**28,622**
Decrease in creditors	13,321	41,591	**10,898**
Increase in provisions	(17,480)	(15,929)	**10,252**
Exchange gain on cash, liquid resources	(122)	(2,514)	**(15,894)**
Write down of fixed assets	4,671	–	**–**
Net cash inflow from operating activities	113,203	173,040	**158,429**

25. Notes to the Statement of Cash Flows (continued)

(b) Analysis of net debt

	At 1 January 1999 US$000	Cash flow US$000	Exchange differences US$000	At 31 December 1999 US$000
Cash at bank and in hand	16,430	(12,665)	2,063	5,828
Bank overdrafts	(58,984)	(8,425)	–	(67,409)
Cash	(42,554)	(21,090)	2,063	(61,581)
Short-term deposits	12,146	(10,188)	–	1,958
Current loans	(11,733)	11,733	–	–
Non-current loans	(170,323)	(26,370)	–	(196,693)
	(212,464)	(45,915)	2,063	(256,316)

	At 1 January 2000 US$000	Cash flow US$000	Changes in group operations US$000	At 31 December 2000 US$000
Cash at bank and in hand	5,828	1,646	–	7,474
Bank overdrafts	(67,409)	57,867	–	(9,542)
Cash	(61,581)	59,513	–	(2,068)
Short-term deposits	1,958	35,304	–	37,262
Non-current loans	(196,693)	216,880	(54,689)	(34,502)
	(256,316)	311,697	(54,689)	692

	At 1 January 2001 US$000	Cash flow US$000	Changes in in Group operations US$000	Exchange differences US$000	At 31 December 2001 US$000
Cash at bank and in hand	7,474	8,984	–	–	**16,458**
Bank overdrafts	(9,542)	8,193	–	–	**(1,349)**
Cash	(2,068)	17,177	–	–	**15,109**
Short-term deposits	37,262	(7,854)	–	–	**29,408**
Current loans	–	(78,994)	–	–	**(78,994)**
Non-current loans	(34,502)	(307,967)	(101,194)	21,673	**(421,990)**
	692	(377,638)	(101,194)	21,673	**(456,467)**

26. Post Balance Sheet Events

On 20 February 2002, Xstrata AG entered into a merger agreement with Xstrata plc, a public limited company incorporated in England and Wales specifically for the purpose of the merger. It is anticipated that prior to completion of the merger, Xstrata AG will transfer the majority of its assets and liabilities to a wholly-owned subsidiary. Subject to the approval of Xstrata AG's shareholders at the general meeting to be held on 19 March 2002, all of the assets of Xstrata AG will be transferred to Xstrata plc on completion of the merger and Xstrata plc will assume all of Xstrata AG's liabilities. In consideration for this transfer, Xstrata plc will issue shares to the shareholders of Xstrata AG in proportion to their respective holdings.

On 21 February 2002, Xstrata plc, Xstrata (Schweiz) AG and Xstrata South Africa (Proprietary) Limited (the "Purchasers"), Xstrata AG and Glencore International AG, Duiker Coal Investments Limited, Duffield Trading Limited, Glencore Finance (Bermuda) Limited and Stychus Invest AG (the "Vendors") entered into the Acquisition agreement to purchase the entire issued share capital of each of Glencore Overseas AG (of which Enex Resources Limited is a wholly owned subsidiary), Duiker Marketing AG and Duiker Mining (Propreitary) Limited (the "Coal Assets") for cash and Ordinary Shares in Xstrata plc with an aggregate value of US$2,067,910,000 (which includes an agreed amount relating to working capital of US$73,000,000), in addition to which Xstrata plc has agreed to assume net indebtedness of Glencore Overseas AG, Duiker Mining (Proprietary) Limited and Duiker Marketing AG and each of their subsidiaries and subsidiary undertakings and where the context requires their associated undertakings and procure the repayment of shareholder loans to Glencore International AG, resulting in a total value of US$2,573,000,000. Completion of the Acquisitions is subject to a number of conditions including Admission of the shares of Xstrata plc to the Official List of the UK Listing Authority.

The acquisition agreement is subject to a number of conditions, including regulatory and third party consents.

27. Capital Commitments

Amounts contracted for but not provided in the financial statements amounted to US$3.3 million (2000 – US$16.2 million; 1999 – US$25.6 million).

28. Contingent Liabilities

On 3 August 2001, a claim was filed (but not yet served by 19 March 2002) against Xstrata Windimurra Pty Ltd and Precious Metals Australia Limited seeking payment of A$6.9 million for variations carried out under an engineering services agreement. A counter claim was subsequently filed by Xstrata Windimurra Pty Limited and Precious Metals Australia Limited for A$3.0 million for the contractors' failure to perform the obligations under that agreement. A settlement offer of A$1.5 million has been made which remains open for acceptance as at 19 March 2002. Precious Metals Australia Limited ceased to be a joint venture participant from 28 September 2000 but it remains liable for 40% of claims under the dispute.

In connection with the expansion at the San Juan de Nieva plant, the company has issued bank guarantees for the amount of €39.0 million (US$34.5 million). The bank guarantees have been issued in respect of grants received from regional and federal authorities. The guarantees will be released once the authorities are satisfied that the Group has met all its obligations in connection with the receipt of the grants.

The Xstrata AG Group has contractual obligations for various expenditures such as royalties, exploration and development. Such expenditures accrue when the related revenue is earned in the ordinary course of business. No contingent liability warrants disclosure at 31 December 2001, 2000 and 1999.

29. Pension Commitments

The Xstrata AG Group operates various defined contribution pension plans covering a majority of employees. Other than in Spain, all pension plans are fully funded and the assets are held separately from those of the Xstrata AG Group, being generally invested with insurance companies and regulated by local legislation.

In general, the pension plans provide benefits to participants at retirement or other life contingencies. The benefits vary from severance payments to retirement pensions on termination of employment. On retirement or other legitimate life contingency, the employees are eligible to a severance lump sum payment or an annuity equal in value to their share of the fund.

Contributions to the funds are made by the Xstrata AG Group and, in some cases, jointly by employees, based on a fixed percentage of the basic annual salary of up to 20%. Payments under the pension plan schemes are recognised as an expense for each respective year. Such expenses for 2001 amounted to US$11.8 million (2000: US$ 5.4 million; 1999: US$ 6.2 million).

Following the transfer of assets and liabilities in February 2002, described below, the Xstrata AG Group operates one defined benefit pension scheme of which there are no active members. Details of defined benefit schemes as at 31 December 2001 are given below.

South Africa

The pension costs are determined with the advice of independent qualified actuaries on the basis of triennial valuations using the projected unit credit method. The results of the most recent valuations, which were conducted as at 31 December 1999 by a qualified independent actuary were as follows:

Main assumptions:	
Rate of return on investments (% per annum)	14.0%
Rate of salary increases (% per annum)	11.5%
Rate of pension increases (% per annum)	9.1%

	US$000
Market value of scheme's assets	5,512
Present value of promised retirement benefits	(3,187)
Surplus	2,325

There are no longer any active members of the scheme.

The scheme's assets and liabilities are not included in the Xstrata AG Group's balance sheet at 31 December 2001 as the fund was transferred to a third party insurance company in February 2002 and the surplus of assets was allocated to the members.

Spain

Benefits are provided for retired personnel that consists of a life long post-retirement pension where 50% is payable to the spouse upon death of the retired employee. In line with local practice no external assets are held in respect of the benefits, although the future commitments under this plan were fully provided for according to an actuarial study conducted as at 31 December 2001 using the projected unit credit method of valuation. The retired personnel at this date amounted to 349 people with an average age of 72 years.

The Spanish law 14/2000 of 29 December 2000 on Tax, Administration and Social Measures has set 16 November 2002 as the deadline for the externalisation of pension commitments assumed by companies with respect to their employees (either through insurance contracts or the formalisation of pension plans), in accordance with the stipulations of Law 30/1995 on Private Insurance. The same rule also establishes the maximum periods for amortisation of the deficit, based on the way in which the externalisation of these commitments has been instrumented. This process is not foreseen to give rise to further liabilities in addition to those already recorded. It is expected that on, or shortly before, the externalisation deadline under Spanish law 14/2000 mentioned above that these pension liabilities will be fully secured with an insurance company.

29. Pension Commitments (continued)

The pension costs are determined with the advice of independent qualified actuaries on the basis of triennial valuations. The results of the most recent valuations performed as at 31 December 2001 are as follows:

Main assumptions	
Rate of pension increases (% per annum)	2%
Discount rate (% per annum)	5%

	US$000
Provision recorded	16,795
Pension liability	16,795

There are no longer any active members of the scheme. The Xstrata AG Group makes payments to the scheme members in accordance with the arrangements of the scheme, with those payments being charged against the provision. At each acturial valuation the provision is adjusted to match the pension liability with movements being posted to the profit and loss account.

30. Post-retirement Benefits other than Pensions

The Xstrata AG Group provides post-retirement medical aid benefits for a number of its employees in South Africa through a number of arrangements. Entitlement to these benefits is subject to periodic review and is dependent upon the employee remaining in service until retirement age but members retiring on or after 1 January 2002 will cease to receive any subsidy towards medical aid contributions. There are only two schemes deemed significant which are further discussed below.

The majority of employees (some 3,600) are covered by a funded defined benefit plan. A valuation of the plan at 31 December 2001 showed a surplus of 12.7% (ZAR 4.7 million). This surplus is below that legally required of 13.5%, and although Xstrata is not legally bound to increase its contributions to generate the required surplus, contributions in 2002 are expected to increase to ZAR 41 million (US$4.8 million) from ZAR 30.5 million (US$3.5 million) in 2001 to generate this required surplus.

At 31 December 2001, the unfunded plan had 54 members with an average age of 58 years old. The Xstrata AG Group recognises the estimated liability on an accrual basis over the working life of the eligible employees.

The accumulated post-retirement medical aid obligations and the annual cost of these benefits were determined by independent actuaries as at 31 December 2001. The assumptions used include estimates of life expectancy and long-term estimates of the increases in medical cost, appropriate discount rates and the level of claims based on the Xstrata AG Group's past experience. Actuarial valuations will be conducted every three years at which time any surplus or shortfall will be adjusted through the income statement. Between actuarial valuation, the provision will be adjusted in accordance with rates supplied by the actuaries.

The main assumptions used in the calculation were:

Rate of inflation in the cost of providing benefits (% per annum)	9%
Increases in contribution rates for members	11%

	US$000
Amounts provided for in the balance sheet	1,929
Present value of promised benefits	1,929
Surplus	-

During the year ended 31 December 2001, US$0.8 million of the provision was released to the profit and loss accounts to reduce the provision to the expected requirements.

31. Other Related Party Transactions

During the year indicated the Xstrata AG Group entered into the following transactions, in the ordinary course of business, with other related parties:

Related party	Sales to related party US$000	Purchases and charges from related party US$000	Amounts owed to related party US$000	Amounts owed from related party US$000
Forestal del Sur Ltda				
2001	1,352	-	-	857
Joint arrangement partners				
2001	-	-	-	-
2000	-	-	-	2,424
1999	-	-	-	16,439
Glencore International				
2001	147,958	43,855	9,950	26,786
2000	67,384	53,694	2,479	22,022
1999	177,643	44,563	16,164	44,897

31. Other Related Party Transactions (continued)

Forestal del Sur Ltda

During 2001, Forestal del Sur Ltda was sold to management at a loss on disposal of US$1.8 million. Subsequently, Forestal del Sur Ltda agreed to provide the day to day management of the plantation, and purchase and on-sell the trees, under a management service agreement and a tolling and marketing agreement. These agreements expire on 31 December 2006.

Joint arrangement partners

The amounts due from the joint arrangement partners are loans made to the partners to assist with the financing of the joint operations.

These relate to the aluminium, coal, vanadium and oil and gas business units.

In addition to the above, loans were also issued to the joint arrangement operations as follows:

Xstrata AG Group held a 23% interest in the Mount Holly aluminium reduction facility in 1999 which was disposed of during 2000. At 31 December 1999, an amount of US$63,276,000 was outstanding from Mount Holly.

Xstrata AG Group held a 95% interest in the United Collieries Joint Venture coal mine until its disposal in 2001. Amounts loaned and outstanding at 31 December 1999 and 2000 were US$25,045,000 and US$22,336,000 respectively.

The Windimurra Vanadium operations ceased to be accounted for as a joint arrangement when the remaining 40% was acquired in 2000. A loan of US$62,139,000 was outstanding from the Windimurra Vanadium operations at 31 December 1999.

Xstrata AG Group held a 32.8% interest in the Santa Cruz I oil and gas fields joint venture in 1999, which was disposed of in 2000. As at 31 December 1999, a loan of US$40 million was outstanding from Santa Cruz I.

No interest was charged on any of these loans to joint arrangement partners.

Glencore International

As at 31 December 2001, Glencore International owned 38.03% of the shares in Xstrata AG.

In 2001, the Xstrata AG Group entered into an agreement with Enex Coal Pty Limited to dispose of its wholly owned subsidiaries Xstrata Coal Pty Limited and Winarch Pty Ltd. Xstrata Coal Pty Limited owned a 95% undivided beneficial interest in the United Collieries Joint Venture coal mine in New South Wales, Australia. The Enex Group manages the United Collieries Joint Venture coal mine. In addition to buying the shares of the disposal entities, Enex Coal Pty Limited repaid all loans outstanding to Xstrata AG at the completion date. The aggregate consideration (including loan repayments of US$23 million) amounted to US$64 million generating a loss on disposal of US$0.2 million.

Some of Xstrata AG's operating subsidiaries have entered into long term agency agreements with Glencore International and/or its subsidiaries under which Glencore provides marketing services in exchange for an agency fee. Agency fees are negotiated on arms' length terms and ranges from 3.5% to 5.0% (2000: 1.5% to 4.75%) of the free on board sales revenue. Glencore acts as collecting agent and also assumes 60% of the non-payment risk of the Xstrata AG Group's ferrochrome trade receivables.

In December 1997, Xstrata Marketing Corporation, a wholly owned subsidiary, entered into an offtake agreement with Glencore International in connection with the acquisition of Rhoex and Vanadium Technology. Under this three year agreement, Glencore acts as the exclusive offtaker of the entire South African vanadium pentoxide and ferrovanadium production at a fixed price of US$ 3.50 per pound of vanadium pentoxide and US$ 16.80 per kilogramme of ferrovanadium. Xstrata Marketing Corporation shares equally with Glencore any surplus arising between the fixed delivered price to Glencore and the delivered customer price. With effect from 1 January 2000, the offtake agreement was restructured in such a way that half of the vanadium pentoxide offtake entitlement for the year 2000 was allocated equally to the years 2001 and 2002 at US$ 3.65 per pound and US$ 3.80 per pound respectively.

Xstrata AG has also entered into service agreements with Glencore International. Fees under these agreements are determined annually and approved by the board of directors. Aggregate fees incurred under such agreements during 2001 amounted to US$1.6 million (2000: US$1.8 million; 1999: US$ 2.0 million).

32. Financial Instruments

The Xstrata AG Group is exposed to changes to currency exchange rates, commodity prices and interest rates in the course of business. Derivative transactions are entered into solely to hedge these risks. Market fluctuations in derivative financial instruments designated as hedges are used to offset the fluctuations in the underlying exposure.

During 1999 and 2000 the use of derivative instruments has been limited to forward foreign exchange contracts, used to hedge sales in US dollars by the Australian coal operations. During 2001, these Australian coal operations were sold, and an additional operation in Spain was acquired. This operation uses forward exchange contracts and zinc futures as part of its normal course of business to hedge the Xstrata AG Group's exposure to fluctuations in the market price of zinc. These are further discussed below.

Interest rate risk of financial liabilities

The interest rate profile of the financial liabilities of the Xstrata AG Group as at 31 December 2001 was as follows:

	Floating rate financial liabilities US$000
2001	
US$	468,290
ZAR	30,604
Euro	2,090
US$ overdraft	1,349
	502,333
2000	
US$	12,000
ZAR	22,502
US$ overdraft	9,542
	44,044

The floating rate financial liabilities comprise:

- US$ and Euro denominated bank loans and overdrafts bear interest at fixed rates above LIBOR. The weighted average rate was 3.9% (6.4% in 2000); and
- ZAR denominated bank loan bears interest at South African prime rate. The weighted average rate was 13.8% (14.6% in 2000).

Currency risk

The table below shows the Xstrata AG Group's currency exposures, those transactional (or non-structural) exposures that give rise to the net currency gains and losses recognised in the profit and loss account. Such exposures comprise the monetary assets and monetary liabilities of the Xstrata AG Group that are not denominated in the operating (or 'functional') currency of the operating unit involved.

As at 31 December, these currency exposures were as follows:

	CLP US$000	EURO US$000	ZAR US$000	A$ US$000	Total US$000
2001	934	95,862	55,657	211	152,664
2000	(477)	-	28,837	(1,277)	27,083

The Xstrata AG Group uses forward exchange contracts to hedge future transactions and cash flows on identifiable foreign currency exposures. As at 31 December 2000 an Australian subsidiary had entered into US dollar/Australian dollar forward exchange contracts to hedge its US dollar denominated revenue (this subsidiary was disposed of during 2001). All of these forward exchange contracts mature within three months after year end (1999: three months). Budgeted sales of the Australian subsidiary are in excess of the contract volumes for the forward contracts during their respective periods. The estimated deferred gain or loss on the open forward contracts has been determined based on pertinent market information available as at 31 December.

	Contract Volume US$000	Average forward rate (US$/A$)	Gain/(loss) US$000
2000 forward exchange contracts	6,275	0.6152	(605)

As at 31 December 2001 a Spanish subsidiary had entered into EUR/US$ forward exchange contracts to hedge its US$ denominated expenditure, incurred in the normal course of business. The estimated deferred gain or loss on the open forward contract has been determined based on pertinent market information available as at 31 December 2001.

	Contract Volume (US$000)	Average forward rate (EURO/US$)	Gain/(loss) US$000
2001 forward exchange contracts	190,000	1.0622	(12,871)

32. Financial Instruments (continued)

Commodity price risk

For the three year period ending 31 December 2000 Xstrata Marketing Corporation entered into an offtake agreement with Glencore International for all its South African vanadium pentoxide and ferrovanadium production at a fixed price of US$ 3.50 per pound and US$ 16.80 per kilogramme, respectively. Any surplus arising between the fixed prices and the delivered customer prices are shared between Xstrata AG Marketing Corporation the agent.

With effect from 1 January 2000, the offtake agreement was restructured in such a way that half of the vanadium pentoxide offtake entitlement for the year 2000 was allocated equally to the years 2001 and 2002 at US$ 3.65 per pound and US$ 3.80 per pound respectively.

A Spanish subsidiary (acquired by Xstrata AG during 2001) enters into LME Zinc futures to hedge potential market price fluctuations from the time zinc concentrate is bought to the time when the zinc metal is sold. The unrecognised gain on the outstanding futures at 31 December 2001 is as follows:

	Estimated Deferred Gain/(Loss) US$000
2001 Zinc Futures	7,143

Credit risk

The Xstrata AG Group is exposed to credit risk in respect of trade receivables, however given the geographical and industry spread of the Xstrata AG Group's customers, credit risk is believed to be limited.

Borrowing facilities

The Xstrata AG Group has various borrowing facilities available to it. The undrawn committed facilities available at 31 December 2000 and 31 December 2001 in respect of which all conditions precedent had been met at that date are as follows:

	2000 US$000	2001 US$000
Expiring in one year or less	-	78,534
Expiring in more than one year but not more than two years	-	-
Expiring in more than two years	302,500	98,647
	302,500	177,181

Fair values

Fair values of financial assets and financial liabilities set out below is a comparison by category of book values and fair values of all the Xstrata AG Group's financial assets and financial liabilities as at 31 December 2001:

Primary financial Instruments	2000 Book value US$000	2000 Fair value US$000	2001 Book value US$000	2001 Fair value US$000
Short-term borrowings and current portion of long-term borrowings	9,542	9,542	**80,343**	**80,343**
Long-term borrowings	34,502	34,502	**421,990**	**421,990**
Fixed asset investments (other than joint ventures and associates)	411	411	**55**	**55**
Cash and short-term deposits	44,736	44,736	**45,866**	**45,886**
Derivative financial instruments held to hedge the currency exposure on expected future transactions				
Zinc futures	-	-	**-**	**7,143**
Forward foreign currency contracts	-	(605)	**-**	**(12,871)**

Market values have been used to determine the fair value of forward foreign currency contacts and zinc futures. The fair value of all other items have been calculated by discounting the expected future cash flows at prevailing interest rates.

32. Financial Instruments (continued)

Hedges

Gains and losses on investments used for hedging are not recognised until the exposure that is being hedged is itself recognised. Unrecognised gains and losses on financial instruments used for hedging, and the movements therein, are as follows:

	Gains US$000	Losses US$000	Net US$000
Unrecognised gains and losses at 1 January 2000	-	(44)	(44)
Gains and losses arising in previous years that were recognised in 2000	-	(44)	(44)
Gains and losses arising in 2000 that were not recognised in 2000	-	(605)	(605)
Unrecognised gains and losses at 31 December 2000	-	(605)	(605)
Of which:			
Gains and losses expected to be recognised in 2001	-	(605)	(605)
Gains and losses expected to be recognised in 2002 or later	-	-	-

	Gains US$000	Losses US$000	Net US$000
Unrecognised gains and losses at 1 January 2001	-	(605)	(605)
Gains and losses arising in previous years that were recognised in 2001	-	(605)	(605)
Gains and losses arising in 2001 that were not recognised in 2001	7,143	(2,237)	4,906
Gains and losses acquired with subsidiary operations in 2001	-	(10,634)	(10,634)
Unrecognised gains and losses at 31 December 2001	7,143	(12,871)	(5,728)
Of which:			
Gains and losses expected to be recognised in 2002	7,143	(7,399)	(256)
Gains and losses expected to be recognised in 2003 or later	-	(5,472)	(5,472)

33. Stock option incentive plan and board of directors' remuneration

In addition to the directors' stock option schemes described in note 5, Xstrata AG grants stock options on its shares to its officers and key employees to align the interests of the management with the interests of shareholders. Under the rules of the Xstrata AG Group Management and Employee Share Incentive Scheme eligible participants are required to purchase Xstrata AG shares at market prices, shares purchased under the scheme remain blocked during a two year vesting period. Xstrata AG Group then allocates options in proportion to shares purchased. The stock options have a two year vesting period followed by a three year exercise period.

The movement in number of share options and the amounts outstanding at each year end are as follows:

Scheme	Exercise price	At 1 January 1999	Granted during the year	Exercised during the year	Lapsed during the year	At 31 December 1999
2001	CHF 432.45	-	-	-		-
2000	CHF 336.85	-	-	-	-	-
1998	CHF 194.70	91,335			(2,700)	88,635
		91,335	-	-	(2,700)	88,635

Scheme	Exercise price	At 1 January 2000	Granted during the year	Exercised during the year	Lapsed during the year	At 31 December 2000
2001	CHF 432.45	-	-	-		--
2000	CHF 336.85	-	49,245	-	-	49,245
1998	CHF 194.70	88,635	-	(71,955)	-	16,680
		88,635	49,245	(71,955)	-	65,925

33. Stock option incentive plan and board of directors' remuneration *(continued)*

At the date of exercise, Xstrata AG's share price was CHF422 per share. Accordingly, a gain of CHF16.4 million (US$ 9.7 million) was realised.

Scheme	Exercise price	At 1 January 2001 No.	Granted during the year No.	Exercised during the year No.	Lapsed during the year No.	At 31 December 2001 No.
2001	CHF 432.45	–	40,785	–	(6,772)	34,013
2000	CHF 336.85	49,245	–	–	(3,470)	45,775
1998	CHF 194.70	16,680	–	–	–	16,680
		65,925	40,785	–	(10,242)	96,468

The options are exercisable between the following dates:

2001 scheme	31 January 2003 and 31 January 2006;
2000 scheme	31 January 2002 and 31 January 2005;
1998 scheme	11 September 2000 and 11 September 2003;

As at 31 December 2001, Xstrata AG held 120,043 shares (2000: 122,470 shares; 1999: 144,420 shares) to hedge its exposure under these stock option plans.

Yours faithfully

Ernst & Young LLP

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20 March 2002

Dear Sirs

ENEX RESOURCES LIMITED ("ENEX") AND ITS SUBSIDIARIES AND ASSOCIATES AND GLENCORE OVERSEAS AG (THE "ENEX GROUP")

1. Introduction

We report on the financial information set out below. This financial information has been prepared for inclusion in the listing particulars dated 20 March 2002 (the "Listing Particulars") of Xstrata plc ("Xstrata").

Enex was incorporated on 9 April 1998 in Australia as a proprietary limited company with the name Lemonshire Pty Limited. On 22 May 1998, its name was changed to Glencore Coal Holdings Proprietary Limited and on 15 June 2001 converted to a public company with the name Glencore Coal Holdings Limited. Subsequently it changed its name to Enex Resources Limited on 17 July 2001. On 30 April 1998, Glencore Overseas AG subscribed for the entire issued share capital of Enex, the holding company of the Enex Group. Glencore Overseas AG, Enex and its subsidiaries, are referred to as the Enex Group.

Basis of preparation

Glencore Overseas AG did not prepare consolidated financial statements and therefore the financial information set out on pages 157 to 189 is based on the financial statements of Glencore Overseas AG and the Enex Group for the three years ended 31 December 2001 and has been prepared on the basis set out on page 161, after making such adjustments as considered necessary. Enex prepares its consolidated financial statements in Australian Dollars and in accordance with Australian Generally Accepted Accounting Principles. Adjustments have been made to present the financial information in the Group's reporting currency, US Dollars and in accordance with Generally Accepted Accounting Practice in the United Kingdom ("UK GAAP").

Responsibility

Such financial statements are the responsibility of the directors of Glencore Overseas and Enex who approved their issue.

The directors of Xstrata are responsible for the contents of the Listing Particulars in which this report is included.

It is our responsibility to compile the financial information set out in our report from the financial statements, to form an opinion on the financial information and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards issued by the Auditing Practices Board. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. The evidence included that recorded by the auditors who audited the financial statements of the Enex Group underlying the financial information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial statements underlying the financial information and whether the accounting policies are appropriate to the Enex Group's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing standards generally accepted in the United States of America and accordingly should not be relied upon as if it had been carried out in accordance with those standards.

Opinion

In our opinion, the financial information gives, for the purposes of the Listing Particulars, a true and fair view of the state of affairs of the Enex Group as at the dates stated and of its profits, cash flows and recognised gains and losses for the periods then ended.

2. Consolidated Profit and Loss Accounts

	Notes	Year ended 31 December 1999 US$000	2000 US$000	2001 US$000
TURNOVER				
Continuing operations		94,703	189,508	**291,199**
Acquisitions		57,717	–	**371,152**
		152,420	189,508	**662,351**
Net operating costs	6.3	(146,387)	(179,553)	**(506,717)**
OPERATING PROFIT	6.4	6,033	9,955	**155,634**
Continuing operations		(1,616)	9,955	**61,896**
Acquisitions		7,649	–	**93,738**
		6,033	9,955	**155,634**
Share of operating profit in associate	6.2	–	2,254	**(466)**
TOTAL OPERATING PROFIT		6,033	12,209	**155,168**
Profit/(loss) on disposal of tangible fixed assets		(11)	133	**1,479**
PROFIT ON ORDINARY ACTIVITIES BEFORE INTEREST AND TAXATION		6,022	12,342	**156,647**
Income from investments		–	–	**760**
Interest receivable and similar income		968	5,595	**1,100**
Interest payable and similar charges	6.7	(770)	(269)	**(7,537)**
Translation of exchange difference on US dollar loan included in the Australian financial statements		(915)	(34,696)	**(29,473)**
PROFIT/(LOSS) ON ORDINARY ACTIVITIES BEFORE TAXATION	6.2	5,305	(17,028)	**121,497**
Tax on profit on ordinary activities	6.8	(2,413)	1,123	**(23,561)**
PROFIT/(LOSS) ON ORDINARY ACTIVITIES AFTER TAXATION		2,892	(15,905)	**97,936**
Minority interests		–	–	**(13,195)**
PROFIT/(LOSS) FOR THE YEAR		2,892	(15,905)	**84,741**
Earnings/(loss) per share – basic and diluted (US$000)	6.9	1,446	(7,953)	**42,371**

NOTE OF HISTORICAL COST PROFITS AND LOSSES

There is no difference between the profit as reported and that which would be reported under the historical cost basis.

3. Statement of Total Recognised Gains and Losses

	Year ended 31 December		
	1999 US$000	2000 US$000	2001 US$000
Profit/(loss) for the year	2,892	(15,905)	**84,741**
Exchange difference arising upon translation	197	(1,820)	**(3,421)**
TOTAL RECOGNISED GAINS AND LOSSES RELATING TO THE YEAR	3,089	(17,725)	**81,320**

Reconciliation of Shareholders' Funds

	Year ended 31 December		
	1999 US$000	2000 US$000	2001 US$000
Total recognised gains and losses	3,089	(17,725)	**81,320**
Total movements during the year	3,089	(17,725)	**81,320**
Shareholders' funds/(deficit) at 1 January	2,150	5,239	**(12,486)**
Shareholders' funds/(deficit) at 31 December	5,239	(12,486)	**68,834**

4. Consolidated Balance Sheets

	Notes	At 31 December 1999 US$000	At 31 December 1999 US$000	At 31 December 2000 US$000	At 31 December 2000 US$000	At 31 December 2001 US$000	At 31 December 2001 US$000
FIXED ASSETS							
Tangible assets	6.10		196,994		249,285		**640,946**
Investments	6.11		166		115,479		**19,970**
			197,160		364,764		**660,916**
CURRENT ASSETS							
Stocks	6.13	19,687		21,423		**56,777**	
Debtors: amounts falling due within one year	6.14	14,904		30,413		**68,093**	
Debtors: amounts falling due after more than one year	6.14	8,074		10,338		**21,420**	
Cash at bank and in hand	6.22(b)	32,852		27,683		**42,804**	
		75,517		89,857		**189,094**	
CREDITORS: amounts falling due within one year	6.15	(34,737)		(39,633)		**(100,179)**	
NET CURRENT ASSETS			40,780		50,224		**88,915**
TOTAL ASSETS LESS CURRENT LIABILITIES			237,940		414,988		**749,831**
CREDITORS: amounts falling due after more than one year	6.16		(215,801)		(373,642)		**(521,149)**
PROVISION FOR LIABILITIES AND CHARGES	6.19		(16,900)		(43,112)		**(80,701)**
			5,239		(1,766)		**147,981**
MINORITY INTERESTS							
Equity			–		(10,720)		**(79,147)**
			5,239		(12,486)		**68,834**
CAPITAL AND RESERVES							
Called up share capital	6.20		–		–		**–**
Foreign currency translation reserve	6.21		197		(1,623)		**(5,044)**
Profit and loss account	6.21		5,042		(10,863)		**73,878**
			5,239		(12,486)		**68,834**

5. Statement of Consolidated Cash Flows

	Notes	Year ended 31 December 1999 US$000	2000 US$000	2001 US$000
NET CASH INFLOW FROM OPERATING ACTIVITIES	6.22(a)	19,037	8,958	**137,821**
RETURNS ON INVESTMENTS AND SERVICING OF FINANCE				
Interest received		966	3,762	**4,637**
Interest paid		(693)	(211)	**(6,535)**
Interest element of finance lease rental payments		(75)	(57)	**(747)**
Dividends received		6	6	**760**
		204	3,500	**(1,885)**
TAXATION				
Tax paid		–	–	**(493)**
CAPITAL EXPENDITURE AND FINANCIAL INVESTMENT				
Payments to acquire tangible fixed assets		(5,188)	(3,141)	**(30,528)**
Receipts from sales of tangible fixed assets		160	133	**3,509**
Payments to acquire investments		–	–	**(2,347)**
Receipts from sales of investments		–	–	**–**
Loans to associated parties		–	(2,004)	**(6,254)**
		(5,028)	(5,012)	**(35,620)**
ACQUISITIONS AND DISPOSALS				
Purchase of subsidiary undertakings	6.11	(32,935)	(198,964)	**(173,788)**
		(32,935)	(198,964)	**(173,788)**
MANAGEMENT OF LIQUID RESOURCES				
Decrease/(increase) in short-term deposits	6.22(b)	(25,071)	(4,343)	**6,803**
NET CASH (OUTFLOW)/INFLOW BEFORE FINANCING		(43,793)	(195,861)	**(67,162)**
FINANCING				
Issue of ordinary share capital		–	–	**–**
Share issue costs		–	–	**–**
Receipts of long-term loans from controlling parties		99,365	173,409	**–**
New long-term loans		–	18,381	**229,440**
Repayment of long-term loans		(56,441)		**(143,487)**
Repayments of capital element of finance leases and hire purchase contracts		(343)	(556)	**5,541**
		42,581	191,234	**91,494**
(DECREASE)/INCREASE IN CASH	6.22(b)	(1,212)	(4,627)	**24,332**

RECONCILIATION OF NET CASH FLOW TO MOVEMENT IN NET DEBT

	Notes	Year ended 31 December 1999 US$000	2000 US$000	2001 US$000
(Decrease)/increase in cash		**(1,212)**	**(4,627)**	**24,332**
Cash (inflow)/outflow from increase in loans – controlling entity		(99,365)	(173,409)	**143,487**
Cash (inflow)/outflow from increase in loans – other		56,441	(16,377)	**(229,440)**
Cash (inflow)/outflow from increase in finance leases		343	556	**(5,541)**
Cash (inflow)/outflow from short-term deposits		25,071	4,343	**(6,803)**
Change in net debt resulting from cash flows		(18,722)	(189,514)	**(73,965)**
Exchange differences		(5,837)	(4,682)	**24,509**
Loans (acquired)/disposed of with operations		(78,152)	26,777	**(98,973)**
MOVEMENT IN NET DEBT		(102,711)	(167,419)	**(148,429)**
NET DEBT AT 1 JANUARY	6.22(b)	(76,530)	(179,241)	**(346,660)**
NET DEBT AT 31 DECEMBER	6.22(b)	(179,241)	(346,660)	**(495,089)**

6. Notes to the Financial Information

1. Accounting Policies

Basis of preparation

The financial information has been prepared under the historical cost convention and in accordance with applicable UK accounting standards including early adoption of Financial Reporting Standard 19; Deferred Taxation. The financial information is based upon the consolidated financial statements of Enex.

Translation of financial statements

The functional currency of the Enex Group is the Australian dollar. The accounts have been translated into US dollars by converting the profit and loss account at the average rate for the reporting period and the balance sheet at the rate on the balance sheet date. The exchange difference arising on the retranslation of opening net assets is taken directly to reserves. The exchange rates applied are set out below.

Basis of Consolidation

The financial information consolidates the accounts of Enex and all its subsidiary undertakings ("subsidiaries") for the three years ended 31 December 2001.

The financial results and net assets of Enex and Glencore Overseas AG have been aggregated in order to present the combined financial information of the Enex Group. The assets and liabilities of the combined Enex Group are consolidated using book values and all profits and losses of both Enex and Glencore Overseas have been consolidated as if the combined Enex Group had always existed.

All subsidiary undertakings acquired have been included in the Enex Group accounts using the acquisition method of accounting. Accordingly, the consolidated profit and loss account and statement of cash flows include the results and cash flows of these acquired entities from the date of acquisition. The purchase consideration has been allocated to assets and liabilities on the basis of fair value at the date of acquisition.

Entities, other than subsidiary undertakings or joint ventures, in which the Enex Group has a participating interest and over whose operating and financial policies the Enex Group exercises a significant influence are treated as associates. In the Enex Group accounts, associates are accounted for using the equity method.

The Enex Group has certain contractual arrangements with other participants to engage in joint activities that do not create an entity carrying on a trade or business of its own. The Enex Group includes its share of assets, liabilities and cash flows measured in accordance with the terms of the arrangement.

Foreign currencies

Transactions in foreign currencies are translated at the exchange rates ruling at the date of transaction or, where forward cover contracts have been arranged, at contractual rates. Monetary assets and liabilities denominated in foreign currencies are retranslated at year end exchange rates, or at a contractual rate if applicable.

Gains and losses on hedging transactions intended to hedge specific sales of goods are included in the measurement of the sale in the same period in which the revenues or costs from the hedged transaction are recorded.

On consolidation, profit and loss account items are translated at average rates of exchange. Balance sheet items are translated at year end exchange rates.

All exchange differences (other than as described above) are charged or credited to the profit and loss account in the year in which they arise.

The following exchange rates have been applied:

Currency rates (US$1)	31 December 1999	Average 1999	31 December 2000	Average 2000	31 December 2001	Average 2001
Australian dollars (A$)	1.5310	1.5498	1.7974	1.7255	1.9556	1.9352

Turnover

Revenue is recognised when all significant risks and rewards of ownership of the asset sold are transferred. Certain sales are initially recognised at estimated sales value when the product is shipped. Adjustments are made for variations in coal price, quality and weights between the time of shipment and the final settlement of sale proceeds.

Cost of sales

Cost of sales represents material cost, determined by means of either the weighted average or first in first out (FIFO) method, and by applying full absorption costing of manufacturing overheads, plus any other costs directly attributable to the acquisition of materials.

Tangible fixed assets

Mineral properties

Mineral properties represent the accumulation of all exploration, evaluation and development expenditure incurred by or on behalf of the entity in relation to areas of interest in which the mining of a mineral resource has commenced.

When further development expenditure is incurred in respect of a mine property after the commencement of production, such expenditure is carried forward as part of the cost of that mine property only when substantial future economic benefits are thereby established, other such expenditure is classified as part of the cost of production.

Amortisation is provided on the unit-of-production method with separate calculations being made for each mineral resource. The unit-of-production basis results in an amortisation charge proportional to the depletion of the economically recoverable mineral reserves. Development costs still to be incurred in relation to the current reserves are included in the amortisation calculation.

Land and buildings, plant and machinery

The cost of each item of buildings, machinery and equipment are written off over its expected useful life to the consolidated entity. Either the units-of-production or straight-line method may be used. The unit-of-production basis results in an amortisation charge proportional to the depletion of the economically recoverable reserves. Each item's economic life has due regard to both its own physical life limitations and to present assessment of economically recoverable reserves of the mine property at which the item is located, and to possible future variations in those assessments. Estimates of remaining useful lives are made on a regular basis for all mine buildings, machinery and equipment, with annual reassessments for major items.

The expected useful lives are as follows:

Mine Buildings	the shorter of applicable mine life and 40 years;
Machinery and equipment	the shorter of applicable mine life and 5-15 years depending on the nature of the asset.

In all categories, the depreciation methods used are those which most accurately reflect the pattern of consumption of economic benefits.

Total net carrying value of mine buildings, machinery and equipment at each mine property are reviewed regularly and, to the extent to which these values exceed their recoverable amounts, that excess is fully provided against/written down in the financial year in which this is determined.

Exploration and evaluation expenditure

Exploration and evaluation expenditure for each area of interest, other than that acquired from the purchase of another mining company, is carried forward as an asset provided that one of the following conditions is met:

- such costs are expected to be recouped through successful development and exploration of the area of interest or alternatively, by its sale; or
- exploration and evaluation activities in the area of interest have not yet reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in relation to the area are continuing. Exploration expenditure which fails to meet at least one of the conditions outlined above is written-off.

Identifiable exploration and evaluation assets acquired from another mining company are recognised as assets at their cost of acquisition. Exploration assets are reassessed on a regular basis and these costs are carried forward provided that at least one of the conditions outlined above is met.

Exploration and evaluation expenditure incurred subsequent to acquisition in respect of an exploration asset acquired, is accounted for in accordance with the policy outlined above for exploration expenditure incurred by or on behalf of the entity.

Impairment

The carrying amounts of fixed assets are reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable. If there are indicators of impairment, an exercise is undertaken to determine whether the carrying values are in excess of their recoverable amount. Such review is undertaken on income generating units ("IGU").

If the carrying amount of a fixed asset exceeds the recoverable amount, a provision is recorded to reflect the asset at the lower amount. In assessing recoverable amount for property, plant and equipment and investments, the relevant future cash flows expected to arise from the continuing use of such assets and from their disposal have been discounted to their present value using a market-determined, risk-adjusted discount rate.

Leasing and hire purchase commitments

Assets held under finance leases, which are leases where substantially all the risks and rewards of ownership of the asset have passed to the Enex Group, and hire purchase contracts are capitalised in the balance sheet and are depreciated over their useful lives. The capital elements of future obligations under leases and hire purchase contracts are included as liabilities in the balance sheet. The interest elements of the rental obligations are charged in the profit and loss account over the periods of the leases and hire purchase contracts and represent a constant proportion of the balance of capital repayments outstanding.

Rentals payable under operating leases are charged in the profit and loss account on a straight-line basis over the lease term.

Stocks

Stocks are stated at the lower of cost and net realisable value. Cost includes all costs incurred in bringing each product to its present location and condition stock is categorised as follows:

- Raw materials and consumables: Materials, goods or supplies (including energy sources) to be either directly or indirectly consumed in the production process.
- Work in progress: Items stored in an intermediate state that have not yet passed through all stages of production.
- Finished goods: Products and materials that have passed all stages of the production process.

Net realisable value is based on estimated selling price less any further costs expected to be incurred to completion and disposal.

Provisions for liabilities and charges

Provisions are recognised when the Enex Group has a present obligation, as a result of past events, and it is probable that an outflow of resources that can be reliably estimated will be required to settle such an obligation.

Environmental protection, rehabilitation and closure costs

Provision is made for close down, restoration and for environmental rehabilitation costs (which include the dismantling and demolition of infrastructure, removal of residual materials and remediation of disturbed areas) in the accounting period when the related environmental disturbance occurs, based on the estimated future costs. The provision is discounted where material and the unwinding of the discount is shown a finance cost in the profit and loss account. At the time of establishing the provision, a corresponding asset is capitalised and depreciated over future production from the mine to which it relates.

The provision is reviewed on an annual basis for changes in cost estimates or lives of operations.

Deferred taxation

Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date, with the following exceptions:

- where fixed assets have been revalued, provision is made for deferred tax only to the extent that, at the balance sheet date, there is a binding agreement to dispose of the assets concerned. However, no provision is made where, on the basis of all available evidence at the balance sheet date, it is more likely than not that the taxable gain will be rolled over into replacement assets and charged to tax only where the replacement assets are sold;
- provision is made for deferred tax that would arise on remittance of the retained earnings of overseas subsidiaries only to the extent that, at the balance sheet date, dividends have been accrued as receivable; and
- deferred tax assets are recognised only to the extent that the directors consider that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Pensions and other post-retirement obligations

The Enex Group operates a number of pension plans, the assets of which are (where funded) generally held in separate trustee-administered funds. The pension plans are generally funded by payments from employees and by the relevant Enex Group companies, taking account of the recommendation of independent qualified actuaries. The Enex Group's contributions to its defined contribution pension plans are charged to the profit and loss account in the year to which they relate.

Employee Entitlements

Wages and salaries, annual leave and sick leave

Liabilities for wages and salaries, annual leave and sick leave are recognised, and are measured as the amount unpaid at the reporting date at current pay rates in respect of employees' services up to that date.

Long service leave

Funding of long service leave entitlements for mine staff is administered by the Coal Mining Industry Long Service Leave (Funding) Corporation ("the Fund"). A liability for long service leave is recognised, where the Fund is in deficit and is based on expected future payments to be made to the Fund in respect of services provided by employees up to the reporting date. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted, where material, using interest rates on national government guaranteed securities with terms to maturity that match, as closely as possible, the estimated future cash outflows.

The Fund collects levies from employers in the coal industry sufficient to finance the expected cost of long service leave liabilities. When employers make long service leave payments to mine staff, the Fund reimburses the employer for most of the payment. To reflect the expected reimbursement for future long service leave payments from the Fund, a current and non-current receivable is booked at the present value of future amounts expected to be reimbursed.

Financial instruments

Measurement

Financial instruments are initially measured at cost, including transaction costs.

Investments

Investments, other than investments in subsidiaries and associates are measured at cost less accumulated impairment losses.

Other financial assets

Other financial assets originated by the Enex Group are stated at cost less a provision for doubtful debts.

Financial liabilities

Loans are recognised at inception at the fair value of the proceeds received net of issue costs. The finance cost recognised in the profit and loss account is allocated to a period over the term of the loan at a constant rate on the carrying amount.

2. Turnover and Segmental Analysis

Turnover represents the amounts derived from the provision of commodities and services which fall within the Enex Group's ordinary activities, stated net of value added tax.

The Enex Group operates solely in one industry sector, being the mining industry in Australia.

The results of all of the acquired entities relate to mining industry activities within Australia.

Turnover, group profit on ordinary activities before tax are analysed as follows:

	Year ended 31 December		
	1999 US$000	2000 US$000	2001 US$000
TURNOVER			
Continuing	152,420	189,508	**662,351**
	152,420	189,508	**662,351**
Turnover of acquired entities included in the above	57,717	–	**371,152**
Turnover of the following acquisitions are included in the above:			
Oceanic Coal Australia Ltd	37,820	–	–
Enex Liddell Pty Ltd	19,897	–	–
Oakbridge Pty Ltd	–	–	**229,730**
Ulan Coal Mines Limited	–	–	**128,840**
United Collieries Pty Ltd	–	–	**12,582**
Turnover by destination			
Europe	9,145	9,097	**19,871**
Asia	124,985	156,439	**556,374**
Australia	18,290	23,972	**86,106**
	152,420	189,508	**662,351**

All the Enex Group's turnover originates in Australia.

PROFIT			
Segment profit:			
Continuing operations	6,033	9,955	**155,634**
	6,033	9,955	**155,634**
Share of profit before tax of associated undertakings	–	2,254	**(466)**
Operating profit/(loss)	6,033	12,209	**155,168**
Net interest and income from investments	198	5,326	**(5,677)**
Profit on disposal of tangible assets	(11)	133	**1,479**
Exchange difference on translation of US dollar loan included in the Australian financial statement	(915)	(34,696)	**(29,473)**
Profit/(loss) on ordinary activities before taxation	5,305	(17,028)	**121,497**
Operating profit of acquisitions included in the above:			
Oceanic Coal Australia Ltd	4,834	–	–
Enex Liddell Pty Ltd	2,815	–	–
Oakbridge Pty Ltd	–	–	**52,374**
Ulan Coal Mines Limited	–	–	**38,902**
United Collieries Pty Ltd	–	–	**2,462**

3. Net Operating Expenses

	Year ended 31 December 1999		Year ended 31 December 2000		Year ended 31 December 2001	
	Continuing US$000	Total US$000	Continuing US$000	Total US$000	Continuing US$000	Total US$000
Cost of sales	119,508	119,508	154,616	154,616	**382,364**	**382,364**
Distribution costs	26,879	26,879	28,461	28,461	**127,336**	**127,336**
Exchange difference on repayment of receivable	–	–	(3,524)	(3,524)	**–**	**–**
Other operating income	–	–	–	–	**(2,983)**	**(2,983)**
Net operating costs	146,387	146,387	179,553	179,553	**506,717**	**506,717**
Gross profit	32,912	32,912	34,892	34,892	**279,987**	**279,987**

Cost of sales includes commissions paid to Glencore International AG, the ultimate controlling entity, of US$8,122,000 in 1999, US$7,888,000 in 2000 and US$6,516,000 in 2001.

The total figures for continuing operations in 1999 include the following amounts relating to the acquisition of Oceanic Coal Australia Ltd: cost of sales US$26,586,000 and net operating costs US$5,410,000.

The total figures for continuing operations in 1999 include the following amounts relating to the acquisition of Enex Liddell Pty Ltd: cost of sales US$13,786,000 and net operating costs US$4,286,000.

The total figures for continuing operations in 2001 include the following amounts relating to the acquisition of Oakbridge Pty Ltd: costs of sales US$139,374,000; net operating costs US$37,349,000.

The total figures for continuing operations in 2001 include the following amounts relating to the acquisition of Ulan Coal Mines Limited: cost of sales US$56,716,000; net operating costs US$33,223,000.

The total figures for continuing operations in 2001 include the following amounts relating to the acquisition of United Collieries Pty Limited: cost of sales US$8,412,000; net operating costs US$2,340,000.

4. Operating profit

This is stated after charging/(crediting):

	Year ended 31 December		
	1999 US$000	2000 US$000	2001 US$000
Auditors' remuneration – audit services	97	103	**237**
Depreciation			
Plant and equipment and mine development	5,571	7,997	**19,183**
Depreciation of assets held under finance leases and hire purchase contracts	148	240	**2,329**
Buildings	187	265	**474**
Mining leases	170	609	**21,094**
	6,076	9,111	**43,080**
Royalty Payments	9,377	6,850	**18,733**
Operating lease rentals	899	896	**1,652**
Amounts charged to provisions:			
Restoration, rehabilitation and environment	670	664	**1,518**

5. Directors' Emoluments

Directors' remuneration and pension entitlements

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Basic salary and fees	56	365	**320**
Benefits	3	19	**14**
Performance related bonuses	13	23	**14**
	72	407	**348**

Enex only commenced paying amounts to directors from November 1999. Prior to this time the directors were remunerated by Glencore Australia, a wholly owned subsidiary of Glencore International AG. These amounts were then recharged to Enex.

The remuneration and pension entitlements of the highest paid director are as follows:

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Basic salary and fees	32	222	**232**
Benefits	2	4	**9**
	34	226	**241**

6. Staff Costs

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Wages and salaries	27,157	32,249	**69,007**
Pension costs	3,800	4,582	**3,043**
	30,957	36,831	**72,050**

The number of employees at the year end was made up as follows:

	Year ended 31 December 1999	Year ended 31 December 2000	Year ended 31 December 2001
Mining	595	595	**1,290**
Administration	138	135	**315**
	733	730	**1,605**

7. Interest Payable and Similar Charges

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Bank loans and overdrafts	–	–	**4,591**
Finance charges payable under finance leases and hire purchase contracts	75	57	**747**
Interest payable – other	695	212	**2,199**
	770	269	**7,537**

8. Tax on Profit on Ordinary Activities

Enex is incorporated in Australia and is subject to taxation under the Australian tax regime.

The taxation charge / (benefit) is made up as follows:

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Foreign tax			
Current tax on income for the period	–	(936)	**(4,958)**
Adjustment in respect of prior years	–	1,046	–
Deferred tax:			
Originating and reversing timing differences	(2,037)	620	**(18,794)**
Effect of change in tax rate	(376)	393	**191**
Total tax (charge)/credit on profit on ordinary activities	(2,413)	1,123	**(23,561)**

The statutory tax provision at the applicable statutory rate is generally calculated on the basis of pre-tax earnings or losses and the applicable statutory tax rates. The difference between the effective provision for income tax and the statutory tax provision at the applicable statutory tax rate is reconciled as follows:

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Statutory provision for tax at applicable statutory rate*	(1,910)	5,790	**(36,449)**
Prior period adjustment	–	1,046	–
Permanent differences	126	1,655	**(2,878)**
Timing differences not previously recognised	(1,063)	(7,584)	**15,546**
Movement in deferred tax provision	2,413	(1,013)	**18,603**
Reduction in tax rate	434	399	**191**
Other	–	(183)	**29**
Effective provision for tax	–	110	**(4,958)**

* Applicable statutory tax rates by period are: 1999 – 36%, 2000 – 34%, 2001 – 30%.

Deferred tax assets and liabilities for 2001, 2000 and 1999 reflect the impact of timing differences between amounts of assets and liabilities for financial reporting purposes and the amounts of such assets and liabilities as measured for tax purposes.

9. Earnings Per Ordinary Share

The calculation of earnings per ordinary share is based on earnings of US$42,370,500 (2000 US$(7,952,500); 1999 US$1,446,000) and on two ordinary shares, being the total number of ordinary shares in issue during the year.

There is no difference between the calculation of ordinary and diluted earnings per share.

10. Tangible Fixed Assets

	Mineral properties US$000	Land and buildings US$000	Plant and machinery US$000	Total US$000
Cost:				
At 1 January 2000	30,514	25,932	213,442	269,888
Exchange adjustment	(5,824)	(3,894)	(33,799)	(43,517)
Additions		-	3,141	3,141
Disposals	-	-	(116)	(116)
Acquired/(disposed of) with operations	61,701	945	27,172	89,818
At 1 January 2001	86,391	22,983	209,840	319,214
Exchange adjustment	(7,670)	(2,041)	(17,910)	(27,621)
Additions	6,232	391	23,905	30,528
Reclassification	(68,260)	(3,033)	71,293	-
Disposals	(83)	(163)	(12,171)	(12,417)
Acquired/(disposed) of with operations	240,402	15,974	170,315	426,691
At 31 December 2001	**257,012**	**34,111**	**445,272**	**736,395**
Depreciation:				
At 1 January 2000	282	2,604	70,008	72,894
Exchange adjustment	(85)	(398)	(11,477)	(11,960)
Provided during the year	1,085	265	7,761	9,111
Disposals		-	(116)	(116)
Acquired/(disposed) of with operations	-	-	-	-
At 1 January 2001	1,282	2,471	66,176	69,929
Exchange adjustment	(108)	(209)	(6,856)	(7,173)
Provided during the year	20,847	474	21,759	43,080
Reclassification	(2,874)	-	2,874	-
Disposals	(2,650)	(4)	(7,733)	(10,387)
Acquired/(disposed of with operations	-	-	-	-
At 31 December 2001	**16,497**	**2,732**	**76,220**	**95,449**
Net book value at 31 December 2001	**240,515**	**31,379**	**369,052**	**640,946**
Net book value at 31 December 2000	85,109	20,512	143,664	249,285
Net book value at 1 January 2000	30,232	23,328	143,434	196,994

The net book value of land and buildings comprises:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Other properties at cost:		
Long leasehold	20,512	**31,379**
Short leasehold	-	**-**
	20,512	**31,379**

10. Tangible Fixed Assets (continued)

Included in the amounts for plant and machinery above are the following amounts relating to leased assets and assets acquired under hire purchase contracts:

	US$000
Cost:	
At 1 January 2000	2,611
Exchange adjustment	(472)
Acquisition of subsidiary undertaking	2,083
At 1 January 2001	4,222
Exchange adjustment	(753)
Additions	6,049
Disposals	(1,255)
Acquisition of subsidiary undertaking	37,605
Reclassification	(2,739)
At 31 December 2001	**43,129**
Depreciation:	
At 1 January 2000	(1,661)
Exchange adjustment	246
Acquisition of subsidiary undertaking	(941)
Depreciation provided during the year	(239)
At 1 January 2001	(2,595)
Exchange adjustment	210
Depreciation provided during the year	(2,329)
Disposals	1,224
Reclassification	1,007
At 31 December 2001	**(2,483)**
Net book value at 31 December 2001	**40,646**
Net book value at 31 December 2000	1,627
Net book value at 1 January 2000	950

11. Investments

	At 31 December 2000 US$000	At 31 December 2001 US$000
Associated undertakings (a)	56,712	-
Loans to associated undertakings (b)	58,575	6,190
	115,287	6,190
Other fixed asset investments (c)	192	13,780
	115,479	19,970

(a) Associated undertakings

	Share of net assets US$000
At 1 January 2000	
Investments in associated undertakings acquired	59,617
Share of profit retained by associated undertaking	2,254
Effect of foreign exchange rate variations	(5,159)
At 1 January 2001	56,712
Share of profit retained by associated undertakings	(466)
Reclassification to subsidiary undertakings	(56,246)
At 31 December 2001	-

As part of the acquisition of GC Coal Company, Enex acquired a 48% interest (held by GC Coal Company) in the share capital of Oakbridge Pty Ltd on 9 March 2000. Oakbridge Pty Ltd operates in the coal mining industry. The consideration for the acquisition of a 48% interest in Oakbridge Pty Ltd was a component amounting to A$98.1m (US$59.6m) of the consideration paid on the acquisition of GC Coal Company (see note 11(d)(iii)). On 31 March 2001, a further 18.5% was acquired and Oakbridge is consolidated as a subsidiary undertaking from this time (see note 11(d) on acquisition of Oakbridge Pty Ltd).

During the year ending 31 December 2000 Oakbridge earned revenues of US$247.7 million, generating a loss of US$16.6 million with no tax being charged, and at 31 December 2000 Oakbridge had fixed assets of US$274.3 million, current assets of US$63.7 million, and current liabilities of US$114.1 million and non-current liabilities of US$167.2 million.

Enex acquired a 50% interest in Cook Resources Pty Limited on 6 August 2001. The consideration for the acquisition was A$1. In addition, Enex, as part of the acquisition, advanced a loan to Cook Resources Pty Limited for US$6,190,000.

(b) Loans to associated undertakings

As at 31 December 2000 the Enex Group had a loan to an associated undertaking, Oakbridge Pty Limited, for an amount of US$58,575,000. During 2001, a further 18.5% was acquired and Oakbridge is consolidated as a subsidiary undertaking from this time.

As at 31 December 2001, the group has a loan to an associated undertaking, Cook Resources Pty Limited, for an amount of US$6,190,000.

(c) Other fixed asset investments

	2000 US$000	2001 US$000
Cost:		
At 1 January	166	192
Additions	53	13,602
Effect of foreign exchange rate variations	(27)	(14)
At 31 December	192	13,780

Enex acquired shares in Newcastle Coal Shippers Pty Limited and Port Waratah Coal Services Limited as part of the acquisition of subsidiary undertakings.

11. Investments (continued)

Details of the principle investments as at 31 December 2001 in which the Group or Enex holds 20% or more of the nominal value of any class of share capital are as follows:

Name of company	Holding	Proportion of voting rights and shares held	Nature of business
Subsidiary undertakings			
All held by the company unless indicated.			
All undertakings are incorporated in Australia			
Enex Coal Pty Limited	Ordinary shares	100%	Mining
Hunter Valley Coal Corporation Pty Limited	Ordinary shares	100%	Mining
Budroll Pty Limited	Ordinary shares	100%	Mining
Oceanic Coal Australia Limited.	Ordinary shares	100%	Mining
OCAL Macquarie Pty Limited	Ordinary shares	100%	Mining
Macquarie Coal Marketing Pty Limited	Ordinary shares	80%	Mining
Enex Liddell Pty Limited	Ordinary shares	100%	Mining
Gabume Pty Limited	Ordinary shares	100%	Mining
Liddell Coal Loader Pty Limited	Ordinary shares	100%	Mining
Liddell Power Generation Sales Pty Limited	Ordinary shares	67.5%	Mining
Liddell Coal Preparation Pty Limited	Ordinary shares	67.5%	Mining
Liddell Tenements Pty Limited	Ordinary shares	67.5%	Mining
Liddell Coal Marketing Pty Limited	Ordinary shares	67.5%	Mining
Liddell Collieries Pty Limited	Ordinary shares	67.5%	Mining
Liddell Southern Tenements Pty Limited	Ordinary shares	67.5%	Mining
Enex Foydell Limited	Ordinary shares	100%	Mining
Glendell Tenements Pty Limited	Ordinary shares	67.5%	Mining
Liddell Coal Operations Pty Limited	Ordinary shares	100%	Mining
Foybrook Tenements Pty Limited	Ordinary shares	67.5%	Mining
Enex Togara Pty Limited	Ordinary shares	100%	Mining
Enex Oakbridge Pty Limited	Ordinary shares	100%	Mining
Oakbridge Pty Limited	Ordinary shares	66.53%	Mining
Coalex Holdings Pty Limited	Ordinary shares	100%	Mining
Coalex Sales Pty Limited	Ordinary shares	100%	Mining
The Lithgow Valley Colliery Company	Ordinary shares	100%	Mining
The Wallerawang Collieries Limited	Ordinary shares	95%	Mining
Oakwell Pty Limited	Ordinary shares	100%	Mining
The Newcastle Wallsend Coal Company Limited	Ordinary shares	100%	Mining
Saxonvale Coal Pty Limited	Ordinary shares	100%	Mining
Sybota Pty Limited	Ordinary shares	100%	Mining
Tagus Holdings Pty Limited	Ordinary shares	100%	Mining
Tagus Properties Pty Limited	Ordinary shares	100%	Mining
Miniere Mining Pty Limited	Ordinary shares	100%	Mining
Genders Mining Pty Limited	Ordinary shares	100%	Mining
Bulga Coal Sales Pty Limited	Ordinary shares	100%	Mining
Saxonvale Coal Sales Pty Limited	Ordinary shares	100%	Mining
Bulga Coal Pty Limited	Ordinary shares	100%	Mining
Bulga Coal Management Pty Limited	Ordinary shares	100%	Mining
McIlwraith McEacharn Pty Limited	Ordinary shares	100%	Mining
McIlwraith McEacharn Operations Pty Ltd	Ordinary shares	100%	Mining
Associated Steamships Pty Limited	Ordinary shares	100%	Mining
McIlwraith Mining Pty Limited	Ordinary shares	100%	Mining
ACN 080 803 461 Pty Limited	Ordinary shares	100%	Mining
Cumnock Coal Limited	Ordinary shares	81.23%	Mining
Cumnock Colliery (No 1) Pty Limited	Ordinary shares	100%	Mining
Jonsha Pty Limited	Ordinary shares	100%	Mining
Ulan Coal Mines Limited	Ordinary shares	90%	Mining
Enex Ulan Pty Limited	Ordinary shares	100%	Mining
Owljura Pty Limited	Ordinary shares	100%	Mining
Gila Pty Limited	Ordinary shares	100%	Mining
Hadenis Pty Limited	Ordinary shares	100%	Mining
Vistajura Pty Limited	Ordinary shares	100%	Mining
Abelshore Pty Limited	Ordinary shares	100%	Mining
United Collieries Pty Limited	Ordinary shares	95%	Mining
United Coal Sales Pty Limited	Ordinary shares	95%	Mining
Winarch Pty Limited	Ordinary shares	100%	Mining
Jerrys Plains Coal Terminal pty Limited	Ordinary shares	100%	Mining

11. Investments (continued)

Associated undertakings

Name of company	Holding	Proportion of voting rights and shares held	Nature of business
2000			
Oakbridge Pty Ltd	Ordinary shares	48%	Mining
2001			
Cook Resources Pty Limited	Ordinary shares	50%	Mining

(d) Acquisition of subsidiary undertakings

(i) GA Group (now Enex Liddell Pty Ltd, Enex Foydell Pty Ltd and Enex Togara Pty Ltd)

In June 1999, the Enex Group acquired 100% of the GA Group of companies for a consideration of US$44,165,000 (A$68,447,000). The investment has been included in the company's balance sheet at its fair value at the date of acquisition which management considered to be equivalent to its book value.

Analysis of the acquisition of the GA Group:

Net assets at date of acquisition:	Book value US$000	Adjustments Revaluation US$000	Adjustments Other US$000	Fair value to group US$000
Tangible fixed assets	45,743	(839)	–	44,904
Stocks	3,850	-	–	3,850
Debtors	6,528	-	–	6,528
Mineral rights	–	-	–	–
Other assets / (liabilities)	(2,843)	–	–	(2,843)
Cash	133	–	–	133
Trade and other creditors	(6,972)	–	–	(6,972)
Borrowings	(1,435)	–	–	(1,435)
Net assets	45,004	(839)		44,165
Consideration				44,165
Less: Cash not acquired				(133)
Net cash outflow from acquisition				44,032

(ii) Oceanic Coal Australia Ltd

In July 1999, the Enex Group acquired 100% of the Oceanic Coal Australia Ltd group of companies for a consideration of US$16,443,000 (A$25,484,000) by the issue of a loan note to the value of US$16,132,000 and cash. The investment in Oceanic Coal Australia Ltd has been included in Enex's balance sheet at its fair value at the date of acquisition.

Analysis of the acquisition of Oceanic Coal Australia Ltd:

Net assets at date of acquisition:	Book value US$000	Adjustments Revaluation US$000	Adjustments Other US$000	Fair value to group US$000
Tangible fixed assets	57,525	-	–	57,525
Stocks	8,853	-	–	8,853
Debtors	7,016	-	–	7,016
Mineral rights	–	72	10,646(a)	10,718
Other assets / (liabilities)	3,169	–	–	3,169
Cash	11,410	–	–	11,410
Trade and other creditors	(10,379)	–	–	(10,379)
Borrowings	(61,223)	–	–	(61,223)
Net assets	16,371	72	10,646	27,089
Fair value of loan notes issued (see below)				26,778
Cash				311
Cash not acquired				(11,408)
Net cash outflow / (inflow)				(11,097)

11. Investments (continued)

(a) In December 2000, Enex paid A$41.5m (US$26.8m) to HIH Insurance group to release a redeemable loan note previously recorded in the books at A$25.0m (US$16.1m). The redemption cost of A$16.5m (US$10.7m) has been recorded as an additional cost of acquisition.

Oceanic Coal Australia Ltd earned a profit after tax of US$36.6 million in the period ended 2 July 1999. The summarised profit and loss account for the period 1 January 1999 to the date of acquisition is as follows:

	US$000
Turnover	82,712
Operating profit/(loss) pre exceptional items and tax	(10,152)
Exceptional items	53,389
Profit before tax	43,237
Taxation	(6,624)
Profit for the period ended 2 July 1999	36,613

There were no recognised gains and losses in the six months ended 2 July 1999 other than the profit of US$36.6 million above.

(iii) GC Coal Company (now known as Enex Oakbridge Pty Ltd)

In March 2000, the Enex Group acquired 100% of GC Coal Company (formerly Cyprus Australia Coal Company and now known as Enex Oakbridge Pty Ltd) for a consideration of US$60,171,000 (A$103,825,000).

Analysis of the acquisition of GC Coal Company (now Enex Oakbridge Pty Ltd):

Net assets at date of acquisition:

	Book value US$000	Adjustments Revaluation US$000	Fair value to group US$000
Debtors	84,186	–	84,186
Investments in associated undertakings (a)	59,617	–	59,617
Other assets / (liabilities)	12,590	(11,909) (b)	681
Cash	156	–	156
Trade and other creditors	(110)	–	(110)
Borrowings	(24)	–	(24)
Net assets	156,415	(11,909)	144,506
Discharged by:			
Loans assumed			84,335
Net cash			60,171
Cash not acquired			(156)
Net cash outflow/(inflow)			144,350

(a) As part of the GC Coal Company acquisition, the Enex Group acquired a 48% interest in Oakbridge Pty Ltd. See also note 11(a). On 31 March 2001, a further 18.5% was acquired and Oakbridge is consolidated as a subsidiary undertaking from this time (see acquisition of Oakbridge Pty Ltd in note 11(d)(v) below).

(b) The reclassification represents the fair value adjustment required to write off the capitalised overburden carried by GC Coal at the time of acquisition.

11. Investments (continued)

(iv) *Cumnock Coal Limited*

On 15 December 2000, the Enex Group acquired 81.23% of the share capital of Cumnock Coal Limited for a consideration of US$48,353,000 (A$83,434,000) cash. The investment in Cumnock Coal Limited has been included in the company's balance sheet at its fair value at the date of acquisition.

Analysis of the acquisition of Cumnock Coal Limited:

Net assets at date of acquisition:

	Book value US$000	Adjustments Revaluation US$000	Adjustments Other US$000	Fair value to group US$000
Tangible fixed assets	26,378	-	-	26,378
Stocks	2,733	-	-	2,733
Debtors	4,617	-	-	4,617
Mineral rights	-	28,496	-	28,496
Other assets / (liabilities)	32,515	(24,457)[a]	-	8,058
Cash	3,305	-	-	3,305
Trade and other creditors	(8,770)	-	-	(8,770)
Borrowings	(5,292)	-	-	(5,292)
Net assets	55,486	4,039	-	59,525
Outside equity interest		-	-	(11,172)
				48,353
Discharged by:				
Consideration - cash				48,353
Cash not acquired				(3,305)
Net cash outflow/(inflow)				45,048

(a) The revaluation adjustment relates to the provisioning for the out of the money hedge book held by Cumnock Coal Limited prior to the acquisition of US$21,909,000 and the write-off of deferred expenditure of US$2,548,000.

During the year ended 31 December 2000 Cumnock Coal Limited contributed US$20,510,000 to the Enex Group's operating cash flow, paid US$517,000 in respect of net returns on investments and servicing of finance, US$ nil in respect of taxation and utilised US$415,000 for capital expenditure and financial investment.

Cumnock Coal Limited earned a profit after tax of US$90,000 in the year ended 31 December 2000 (1999: US$403,000). The summarised profit and loss account for the period 1 January 2000 to the date of acquisition is as follows:

	US$000
Turnover	60,327
Profit before tax	241
Taxation	151
	90

There were no recognised gains and losses in the 11 months ended 15 December 2000 other than the profit above.

(v) *Oakbridge Pty Ltd*

On 31 March 2001, the Enex Group increased its shareholding in Oakbridge Pty Ltd from 48% (see notes 11(a) and 11(d)(iii)) to 66.53%. The acquisition of the additional 18.53% was for a consideration of US$58,908,000 (A$114,000,000). Oakbridge Pty Ltd has been included in the consolidated balance sheet of the Enex Group at 31 December 2001.

11. Investments (continued)

Analysis of the acquisition of the additional 18.53% of Oakbridge Pty Limited:

Net assets at date of acquisition:

	Book value US$000	Revaluation adjustment US$000	Fair value to Group US$000
Tangible fixed assets	190,682	-	190,682
Stocks	16,384	-	16,384
Debtors	7,719	-	7,719
Mineral rights	-	101,010	101,010
Other liabilities	(913)	-	(913)
Cash	4,875	-	4,875
Trade and other creditors	(33,051)	-	(33,051)
Borrowings	(115,682)	-	(115,682)
Net assets	70,014	101,010	171,024
Outside equity interest			(55,870)
Less: Enex share of net assets on an equity accounting basis at the date of acquisition of additional 18.53%	-	-	(56,246)
Consideration			58,908
Less: Cash not acquired			(4,875)
Discharged by:			
Cash			54,033

(a) On 31 March 2001, Enex acquired the additional 18.53% interest in Oakbridge Pty Ltd for a consideration of US$58.9 million.

(b) During the year ended 31 December 2001 Oakbridge Pty Ltd contributed US$43,215,000 to the Enex Group's net operating cash flows, paid US$4,895,000 in respect of returns on investments and servicing of finance and paid US$ nil in respect of taxation and US$13,606 in respect of capital expenditure.

(c) Oakbridge Pty Ltd earned a loss after tax of US$16,633,000 in the year ended 31 December 2000 (1999 loss: US$30,911,000). The summarised profit and loss account for the period 1 January 2001 to the date of acquisition is as follows:

	US$000
Turnover	110,950
Profit before tax	(971)
Taxation	-
	(971)

(vi) Ulan Coal Mines Limited

In February 2001, the Enex Group acquired 90% of the Ulan Coal Mines Joint Venture via its 100% owned subsidiaries Jonsha Pty Limited, Enex Ulan Pty Ltd, Gila Pty Limited and Vistajura Pty Limited, and 90% of Ulan Coal Mines Limited via its 100% owned subsidiaries Jonsha Pty Limited and Enex Ulan Pty Ltd. The acquisition was for consideration of US$57,581,000 (A$111,430,000). The investment of Ulan Coal Mines Limited has been included in Enex's balance sheet at its fair value at the date of acquisition.

11. Investments (continued)

Analysis of the acquisition of Ulan Coal Mines Limited:

Net assets at date of acquisition:

	Book value US$000	Revaluation adjustment US$000	Fair value to Group US$000
Tangible fixed assets	73,682	–	73,682
Stocks	7,390	–	7,390
Debtors	2,207	–	2,207
Mineral rights	–	2,883	2,883
Other assets/liabilities	(9,750)	–	(9,750)
Cash	1,447	–	1,447
Trade and other creditors	(9,926)	–	(9,926)
Borrowings	(10,352)	–	(10,352)
Net assets	54,698	2,883	57,581
Consideration			57,581
Less: Cash not acquired			(1,447)
Discharged by:			
Cash			56,134

United Collieries Pty Ltd

During July 2001, the Enex Group completed the acquisition of 95% of the United Collieries Joint Venture, United Collieries Pty Ltd, and United Coal Sales Pty Limited via the acquisition of its 100% owned subsidiary Abelshore Pty Limited. The acquisition was for consideration of US$42,600,000 (A$82,439,000). The investment of United Collieries Pty Ltd has been included in the company's balance sheet at its fair value at the date of acquisition.

Analysis of the acquisition of United Collieries Pty Limited:

Net assets at date of acquisition:

	Book value US$000	Revaluation adjustment US$000	Fair value to Group US$000
Tangible fixed assets	64,335	–	64,335
Stocks	1,813	–	1,813
Debtors	3,112	–	3,112
Cash	1,700	–	1,700
Trade and other creditors	(6,788)	1,149	(5,639)
Net assets	64,172	1,149	65,321
Consideration:			
Cash			42,600
Loans assumed			22,721
			65,321

The revaluation adjustment relates to accruals and provisions not assumed.

During the year ended 31 December 2000 United Collieries Pty Ltd generated revenues of US$35.3 million, loss before tax of US$3.5 million and a net loss of US$3.2 million after receiving a tax credit of US$0.3 million.

12. Interests in Joint Ventures

The economic entity has interests in unincorporated joint ventures as follows:

Joint Venture	Principal Activities	Percentage Interest as at 31 December 1999	2000	2001
Macquarie Coal Joint Venture	Coal Mining	80.0%	80.0%	80.0%
Liddell Joint Venture	Coal Mining	67.5%	67.5%	67.5%
Foybrook Joint Venture	Coal Mining	67.5%	67.5%	67.5%
Glendell Joint Venture	Mine Development	67.5%	67.5%	67.5%
Togara North Joint Venture	Coal Exploration	33.3%	33.3%	33.3%
Ravensworth Coal Terminal	Coal Handling	-	35.6%	35.6%
Bulga Joint Venture	Coal Mining		90.0%	87.5%
Ulan Coal Mines Joint Venture	Coal Mining			90.0%
United Joint Venture	Coal Mining			95.0%

The joint ventures are not separate legal entities. They are contractual arrangements between the participants for the sharing of costs and output and do not in themselves generate revenue or profit and have been accounted for as joint arrangements that are not an entity.

The Enex Group's direct and indirect interests in joint venture net assets as summarised below are included in the corresponding balance sheet items in the consolidated accounts:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Current Assets		
Cash	443	**2,755**
Debtors: amount fall due within one year	10,301	**8,833**
Inventories	9,491	**36,276**
Other	887	**31,064**
Non-Current Assets		
Debtors: amounts falling due after more than one year	1,671	**6,654**
Investments	70	**449**
Property, plant and equipment	76,675	**279,664**
Other	1,170	**4,472**
Total Assets	100,708	**370,167**
Creditors falling due within one year	11,643	**51,488**
Creditors falling due later than one year	16,670	**7,317**
Provisions	9,607	**33,874**
Total Liabilities	37,920	**92,679**
Net Assets	62,788	**277,488**

13. Stocks

	At 31 December 2000 US$000	At 31 December 2001 US$000
Raw materials and consumables	3,049	**7,225**
Finished goods and goods for resale	18,374	**49,552**
	21,423	**56,777**

14. Debtors

Debtors: amounts falling due after more than one year:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Prepayments	1,243	**5,642**
Accrued Revenue	4,972	**3,178**
Other	4,123	**12,600**
	10,338	**21,420**

Debtors: amounts falling due within one year:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Trade debtors	14,909	**53,273**
Amounts owed by associated undertakings	–	**–**
Other debtors	12,409	**4,747**
Prepayments and accrued income	3,095	**10,073**
	30,413	**68,093**

Included in non-trade debtors for the 31 December 2000 year are amounts due from Centennial Coal Company Limited of US$3.4m, Goods and Services Tax (VAT) receivable of US$2.6m and insurance proceeds due of US$1.5m. Included within other debtors are amounts relating to Employee Entitlements.

Included in non-trade debtors for the 31 December 2001 year are Goods and Services Tax receivable of US$3.4m, insurance claims of US$4.5m and diesel fuel rebates of US$1.2m. Included within other debtors are amounts relating to Employee Entitlements.

15. Creditors: Amounts falling due within one year

	At 31 December 2000 US$000	At 31 December 2001 US$000
Current instalments due on loans – Bank loans (i)	2,224	**2,045**
Current instalments due on loans – Other loans (ii)	1,493	**17,646**
Obligations under finance leases and hire purchase contracts (iii)	603	**1,092**
Trade creditors	27,935	**74,236**
Corporation tax	936	**5,160**
Other taxes and social security costs	807	**–**
Amounts payable to controlling entity	5,635	**–**
	39,633	**100,179**

(i) This loan is secured by registered first mortgages over assets and undertakings.

(ii) At 31 December 2001 US$17,303,000 was unsecured.

(iii) The lease liabilities are secured over the specific items of plant and equipment.

16. Creditors: Amounts falling due after more than one year

	At 31 December 2000 US$000	At 31 December 2001 US$000
Bank loans (i)	2,224	299,972
Other loans (ii)	396	4,306
Obligations under finance leases and hire purchase contracts (iii)	396	15,720
Payable to controlling entity	367,007	197,112
Other	3,619	4,039
	373,642	521,149

Any payments to the controlling entity subsequent to 31 December 2001 are subordinated to any repayments made on the bank loans and accordingly amounts payable to controlling entity have been classified as amounts falling due after more than one year.

(i) – (iii) – Loan details are secured as described in note 15.

17. Loans

	At 31 December 2000 US$000	At 31 December 2001 US$000
Amounts falling due:		
In one year or less or on demand	3,717	19,691
Between one and two years	2,620	4,306
Between two and five years	–	299,972
In five years or more	–	–
	6,337	323,969
Included in creditors: amounts falling due		
within one year	3,717	19,691
after more than one year	2,620	304,278
	6,337	323,969

18. Obligations under Leases and Hire Purchase Contracts

Amounts due under finance leases and hire purchase contracts:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Amounts payable:		
Within one year	661	1,500
In two to five years	431	7,206
Later than 5 years	–	15,816
	1,092	24,522
Less: finance charges allocated to future periods:		
Within one year	58	471
In two to five years	35	2,265
Later than five years	–	4,973
	999	16,813

Annual commitments under non-cancellable operating leases are as follows:

	Land and buildings		Other	
	At 31 December 2000 US$000	At 31 December 2001 US$000	At 31 December 2000 US$000	At 31 December 2001 US$000
Operating leases which expire:				
Within one year	–	–	–	555
In two to five years	–	–	896	689
In over five years	–	–	–	408
	–	–	896	1,652

19. Provisions for Liabilities and Charges

	Employee Entitlements US$000	Restoration, Rehabilitation & Environment US$000	Provision for foreign currency losses US$000	Sundry Provision US$000	Deferred tax liability US$000	Total US$000
At 1 January 2000	10,927	7,193	–	–	(1,220)	16,900
Acquisition of subsidiary undertaking	2,798	–	22,835	–	816	26,449
Arising during the year	2,282	664	–	892	(1,013)	2,825
Exchange adjustment	(1,510)	(1,120)	–	–	(432)	(3,062)
Utilised	–	–		–	–	–
At 1 January 2001	14,497	6,737	22,835	892	(1,849)	43,112
Acquisition of subsidiary undertaking	35,493	6,571	–	–	2,043	44,107
Arising during the year	(9,905)	1,518	–	–	18,603	10,216
Exchange adjustment	(1,169)	(541)	(1,833)	–	(112)	(3,655)
Utilised	–	–	(12,187)	(892)	–	(13,079)
At 31 December 2001	**38,916**	**14,285**	**8,815**	**–**	**18,685**	**80,701**

Deferred taxation comprises:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Fixed Assets	26,121	**33,813**
Deferred expenses	–	**9,408**
Tax losses	(21,820)	**(37,125)**
Foreign exchange	–	**11,517**
Provisions	(6,150)	**(9,959)**
Employee entitlements	–	**(4,966)**
Other timing differences	–	**15,997**
	(1,849)	**18,685**

Deferred taxation not recognised in respect of tax losses and other timing differences amounts to US$19.5 million for 2001 (2000: US$28.4 million). These assets will be recognised as future taxable profits or timing differences against which they may be deducted arise.

Employee entitlement provision represents the value of excess leave entitlements allocated over the leave taken by the employees of the company. These amounts are expected to reverse as the employees either take their accrued leave or receive equivalent benefits upon ceasing employment.

Accrued Restoration, Rehabilitation and Environment provision represents the accrual of costs required to provide adequate restoration and rehabilitation upon the completion of mining activities. These amounts will reverse when such rehabilitation has been performed.

Provision for foreign currency losses represents the unrealised loss on financial derivative instruments not recognised as effective hedges. These amounts are expected to reverse as the derivative instruments to which they are attached are closed.

20. Share Capital

The authorised share capital consists of the ordinary shares of A$1 nominal value each. Both of these shares are issued and fully paid.

21. Reserves

	Share premium account US$000	Revaluation reserve US$000	Currency translation reserve US$000	Profit and loss account US$000
At 1 January 1999	–	–	–	2,150
Retained profit for the year	–	–	–	2,892
Exchange differences arising on translation	–	–	197	–
At 31 December 1999	–	–	197	5,042
Exchange differences on retranslation	–	–	(1,820)	–
Retained profit for the year	–	–	–	(15,905)
At 31 December 2001	–	–	(1,623)	(10,863)
Exchange differences on retranslation	–	–	(3,421)	–
Retained profit for the year	–	–	–	84,741
At 31 December 2001	**–**	**–**	**(5,044)**	**73,878**

22. Notes to the Statement of Cash Flows

(a) Reconciliation of operating profit to net cash inflow from operating activities

	Year ended 31 December 1999 US$000	Year ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Operating profit	6,033	9,955	**155,634**
Depreciation	6,076	9,111	**43,080**
Increase in other operating assets	(1,337)	2,248	**3,354**
Decrease in debtors	8,757	(10,098)	**(34,676)**
Increase in stocks	(3,164)	(1,738)	**(11,643)**
Decrease in creditors	(452)	(593)	**(10,900)**
Increase in other provisions	3,124	73	**(7,028)**
Net cash inflow from operating activities	19,037	8,958	**137,821**

Cash flows resulting from the acquisition of subsidiary undertakings have been disclosed in Note 11.

(b) Analysis of net debt

	At 1 January 1999 US$000	Cash flow US$000	Exchange differences US$000	Acquisition of subsidiary undertakings US$000	At 31 December 1999 US$000
Cash at bank and in hand	8,132	(1,212)	861	–	7,781
Bank overdrafts	–	–	–	–	–
Cash	8,132	(1,212)	861	–	7,781
Short-term deposits*	–	25,071	–	–	25,071
Loans – controlling entity	(84,662)	(99,365)	(6,698)	–	(190,725)
Loans – other	–	56,441	–	(76,716)	(20,275)
Finance leases	–	343	–	(1,436)	(1,093)
	(76,530)	(18,722)	(5,837)	(78,152)	(179,241)

	At 1 January 2000 US$000	Cash flow US$000	Exchange differences US$000	Acquisition of subsidiary undertakings US$000	At 31 December 2000 US$000
Cash at bank and in hand	7,781	(4,627)	(1,157)	–	1,997
Bank overdrafts	–	–	–	–	–
Cash	7,781	(4,627)	(1,157)	–	1,997
Short-term deposits*	25,071	4,343	(3,728)	–	25,686
Loans – controlling entity	(190,725)	(173,409)	(2,873)	–	(367,007)
Loans – other	(20,275)	(16,377)	3,014	27,301	(6,337)
Finance leases	(1,093)	556	162	(624)	(999)
	(179,241)	(189,514)	(4,582)	26,677	(346,660)

	At 1 January 2001 US$000	Cash flow US$000	Exchange differences US$000	Acquisition of subsidiary undertakings US$000	At 31 December 2001 US$000
Cash at bank and in hand	1,997	24,332	(738)	–	**25,591**
Bank overdrafts	–	–	–	–	**–**
Cash	1,997	24,332	(738)	–	**25,591**
Short-term deposits*	25,686	(6,803)	(1,670)	–	**17,213**
Loans – controlling entity	(367,007)	143,487	26,408	–	**(197,112)**
Loans – other	(6,337)	(229,440)	509	(88,701)	**(323,969)**
Finance leases	(999)	(5,541)	–	(10,272)	**(16,812)**
	(346,660)	(73,965)	24,509	(98,973)	**(495,089)**

* Short-term deposits are included within cash at bank and in hand in the balance sheet.

23. Post Balance Sheet Events

On 13 March 2002, the Enex Group acquired The Ravensworth Group from Coal & Allied Industries Limited for US$64 million. The Enex Group has also agreed to acquire the land on which the Ravensworth West project is situated, however the acquisition has not yet been completed.

On 21 February 2002, Xstrata plc, Xstrata (Schweiz) AG and Xstrata South Africa (Proprietary) Limited ("the Purchasers"), Xstrata AG and Glencore International AG, Duiker Coal Investments Limited, Duffield Trading Limited, Glencore Finance (Bermuda) Limited and Stychus Invest AG ("the Vendors") entered into the Acquisition agreement to purchase the entire issued share capital of each of Glencore Overseas AG (of which Enex Resources Limited is a wholly owned subsidiary), Duiker Marketing AG and Duiker Mining (Propreitary) Limited ("the Coal Assets") for cash and Ordinary Shares in Xstrata plc with an aggregate value of US$2,067,910,000 (which includes an agreed amount relating to working capital of US$73,000,000), in addition to which Xstrata plc has agreed to assume net indebtedness of Glencore Overseas AG, Duiker Mining (Proprietary) Limited and Duiker Marketing AG and each of their subsidiaries and subsidiary undertakings and where the context requires their associated undertakings and procure the repayment of shareholder loans to Glencore International AG, resulting in a total value of US$2,573,000,000. Completion of the Acquisitions is subject to a number of conditions including Admission of the shares of Xstrata plc to the Official List of the UK Listing Authority.

The acquisition agreement is subject to a number of conditions, including regulatory and third party consents.

24. Capital Commitments

Amounts contracted for but not provided in the accounts amounted to US$26,693,000 (2000 US$685,000; 1999 US$254,000).

25. Contingent Liabilities

Performance guarantees provided to customers under contracts for supply of coal and other external parties amount to US$ 5.0 million at 31 December 2001 (2000: US$ 2.4 million).

Guarantees to the NSW and Queensland Minister for Mineral Resources in respect of various mining lease and the performance guarantees amount to US$ 27.5 million at 31 December 2001 (2000: US$ 9.7 million).

Enex has entered into a deed of cross guarantee with certain wholly owned controlled entities. The total liabilities of these wholly owned controlled entities (excluding the amount owing to the parent entity) are US$ 606.3 million.

Litigation

There are a number of occupational health and safety proceedings and civil proceedings relating to occupational health and safety incidents and other litigation that have been, or may be, commenced against Enex that could result in penalties or the award of damages. Enex does not expect any of the claims to have a material impact on the business.

Native title and land right claims have been made over land upon which Enex carries on operations. The outcome of these claims is presently uncertain.

No material losses are anticipated in respect of any of the above contingent liabilities.

26. Pension Commitments

Industry Funds

Under the NSW Coal and Oil Shale Mineworkers (Superannuation) Act 1941, Enex is required to make contributions to the Coal Super Retirement Income Fund for each person employed as a Mineworker (as defined by the Act).

The Coal Super Retirement Income Fund is separated into two plans, the COSAF Super Plan and the Miners' Super Plan. The COSAF Super Plan is a defined contribution scheme where contributions to the funds are made based on 9% of basic annual salary (US$8.2 million in 2001).

The Miners' Super Plan is a defined benefits scheme and was closed to new members and precluded any future accrual of entitlement for members of the plan as from 2 January 1993 under the NSW Coal and Oil Shaleworkers (Superannuation) Amendment Act 1992. This is a multi-employer scheme and accordingly the Enex Group is unable to identify its share of the underlying assets and liabilities of the scheme, consequently it has been accounted for as a defined contribution scheme. These funds provide benefits to employees on retirement, disability or death.

Contributions are payable to the funds in respect of each employee at statutory determined rates. The contributions by the consolidated entity are legally enforceable in terms of the Trust Deeds of the funds. The consolidated entity has a legal obligation to regarding the shortfall in the Miners' Super Plan in terms of its obligation to provide benefits to employees and is contributing additional amounts thereto in accordance with the NSW Coal Mining Industry Statutory Superannuation (Restructuring) Agreement dated 25 June 1992. Employees are entitled to benefits on resignation, retirement, disability or death.

Further contributions, in addition to the employer's current contribution of 9% of pensionable earnings, have been made in order to eliminate the deficiency in the scheme. The deficit in the Miners Super Plan as at 31 December 1999 has since been repaid. Accordingly, no liability has been recorded.

No actuarial valuation has been performed on the fund. Recent actuarial reviews of both the fund and the level of contributions indicated the current level of contributions are sufficient and that the pension expense disclosed in the financial statements accurately reflects that required to satisfy the future obligations of the fund.

Company Sponsored Funds

The consolidated entity contributes to superannuation funds for employees who are not mine workers. The funds are accumulation funds (defined contribution) providing benefits to these employees on retirement, disability or death.

27. Other Directors' Interests

During the periods ended 31 December 1999, 2000 and 2001, the Enex Group did not enter into any business related contracts with any entity of which a director, or their associate had a material interest.

28. Other Related Party Transactions

During the year the Enex Group entered into the following transactions, in the ordinary course of business, with other related parties:

Related party	Commission to related party US$000	Coal sales to related party US$000	Coal purchases from related party US$000	Amounts owed to related party US$000
Ultimate Controlling Entity				
Glencore International AG				
2001	6,516	11,112	–	197,112
2000	7,888	12,462	3,620	372,642
1999	8,122	34,378	3,967	203,686
Associated entities				
Cook Resources Pty Limited				
2001	–	–	–	6,190
2000	–	–	–	–
1999	–	–	–	–
Oakbridge Pty Limited				
2001	–	–	–	–
2000	–	5,025	5,350	58,575
1999	–	–	–	–

Glencore Overseas AG

Glencore Overseas AG owns 100% of the shares in Enex. The ultimate controlling entity of Glencore Overseas AG is Glencore International AG, incorporated in Switzerland. The loan from Glencore International AG is a non-interest bearing loan and has no fixed repayment terms.

Oakbridge Pty Ltd

The Enex Group has a 48% interest in Oakbridge Pty Ltd as at 31 December 2000. In 2001, this stake was increased to 66.53%, and Oakbridge Pty Ltd is accounted for as a subsidiary undertaking in this period. Subsidiary undertakings are not classified as related parties for the purposes of this disclosure. Interest was also received.

Cook Resources Pty Limited

The loan to Cook Resources Pty Limited is a non-interest bearing loan and has no fixed repayment terms.

29. Financial Instruments

The Enex Group is exposed to changes to currency exchange rates and interest rates in the course of business. Derivative transactions are entered into solely to hedge foreign currency risks, within limits set by the board of directors from time to time. Market fluctuations in derivative financial instruments designated as hedges are used to offset the fluctuations in the underlying exposure.

The use of derivative instruments has been limited to forward foreign exchange contracts, used to hedge sales in US dollars by the Australian operations. These operations amount to 100% of the Enex Group's turnover in 2001 (100% in 2000; 100% in 1999).

Interest rate risk of financial liabilities

Short-term debtors and creditors are excluded from the analysis below.

The interest rate profile of the financial liabilities of the Enex Group as at 31 December was as follows:

	Floating rate financial liabilities US$000
2001	
Bank loans - Unsecured (US$)	299,972
Bank loans - Secured (US$)	2,045
2000	
Bank loan - Secured (US$)	4,448

	Fixed rate	Fixed rate financial liabilities US$000
2001		
Other loans - Unsecured (A$42.3 million)	5.3%	21,952
Lease liabilities (A$)	4.8%	16,812
2000		
Other loan - Secured (A$3.4 million)	5.3%	1,889
Lease liabilities (A$)		999

	Non-interest bearing US$000
2001	
Loan payable to controlling entity (US$)	197,112
Other long term liabilities (A$)	4,040
2000	
Amounts payable to controlling entity (A$)	5,635
Loan payable to controlling entity (US$)	367,007
Other (A$)	3,619

The floating rate financial liabilities comprise:

US dollar denominated bank loan bears interest at LIBOR +0.9%. The weighted average rate was 3% (7.5% in 2000).

The non-interest bearing financial liabilities are due in more than one year, however no repayment dates are determined.

29. Financial Instruments (continued)

Interest rate risk of financial assets

The interest rate profile of the financial assets of the Enex Group as at 31 December was as follows:

	Floating rate	Floating rate Financial assets US$000
2001		
Cash (A$71.6 million, US$6.2 million)	4.0%	42,804
2000		
Cash (A$65.8 million, US$3.5 million)	6.2%	27,683

	Non-interest bearing US$000
2001	
Debtors – due after one year (A$)	21,420
2000	
Debtors – due after one year (A$)	10,338

The Enex Group uses forward exchange contracts to hedge future transactions and cash flows on identifiable foreign currency exposures. Budgeted sales of the Australian subsidiary are in excess of the contract volumes for the forward contracts during their respective periods. The estimated deferred gain or loss on the open forward contracts has been determined based on pertinent market information available as at 31 December.

	Contract Volume	Average forward rate (US$/A$)	Estimated deferred gain/(loss) US$000
2001 forward exchange contracts	695,462	1.9139	(15,062)
2000 forward exchange contracts	108,482	1.6239	(5,310)

The settlements dates for the outstanding contracts can be summarised as follows:

Maturity	2000 US$000	2001 US$000
Less than 12 months	95,791	695,462
1–2 years	12,691	–

Credit risk

The Enex Group is exposed to credit risk in respect of trade debtors. Given the geographical and industry spread of the Enex Group's customers, credit risk is believed to be limited.

29. Financial Instruments (continued)

Fair values

Fair values of financial assets and financial liabilities set out below is a comparison by category of book values and fair values of all the Enex Group's financial assets and financial liabilities as at 31 December:

	At 31 December 2000		At 31 December 2001	
	Book value US$000	Fair value US$000	Book value US$000	Fair value US$000
Primary financial instruments				
Finance leases and hire purchase liabilities	999	999	16,812	16,812
Short-term borrowings and current portion of long term borrowings	3,717	3,717	19,691	19,691
Long-term borrowings	373,642	373,642	521,150	521,150
Fixed asset investments (other than joint ventures, and associates)	192	192	13,780	13,780
Cash and short-term deposits	27,683	27,683	42,804	42,804
Debtors due after one year	10,338	10,338	21,420	21,420
Derivative financial instruments held to hedge the currency exposure on expected future transactions				
Forward foreign currency contracts	-	(5,310)	-	(15,062)
Provision for foreign currency losses	(22,785)	(22,785)	(8,765)	(8,765)

Market values have been used to determine the fair value of forward foreign currency contracts. The fair value of all other items have been calculated by discounting the expected future cash flows at prevailing interest rates.

Borrowing Facilities

The Enex Group has various borrowing facilities available to it. The undrawn committed facilities available at 31 December in respect of which all conditions precedent had been met at that date are as follows:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Expiring in one year or less	-	-
Expiring in more than one year but not more than two years	-	-
Expiring in more than two years	-	-

There are no undrawn facilities available as at 31 December 2001.

Hedges

Gains and losses on investments used for hedging are not recognised until the exposure that is being hedged is itself recognised. Unrecognised gains and losses on financial instruments used for hedging, and the movements therein, are as follows:

	Gains US$000	Losses US$000	Net US$000
Unrecognised gains and losses at 1 January 2000	-	(185)	(185)
Gains and losses arising in previous years that were recognised in 2000	-	(185)	(185)
Gains and losses arising in 2000 that were not recognised in 2000	-	(5,310)	(5,310)
Unrecognised gains and losses at 31 December 2000	-	(5,310)	(5,310)
Of which:			
Gains and losses expected to be recognised in 2001	-	(4,688)	(4,688)
Gains and losses expected to be recognised in 2002 or later	-	(622)	(622)

	Gains US$000	Losses US$000	Net US$000
Unrecognised gains and losses at 1 January 2001	-	(5,310)	(5,310)
Gains and losses arising in previous years that were recognised in 2001	-	(4,688)	(4,688)
Gains and losses arising in 2001 that were not recognised in 2001	-	(14,440)	(14,440)
Unrecognised gains and losses at 31 December 2001	-	(15,062)	(15,062)
Of which:			
Gains and losses expected to be recognised in 2002	-	(15,062)	(15,062)
Gains and losses expected to be recognised in 2003 or later	-	-	-

30. Minority Interests

The minority interests represents the following holdings:

- A holding of 18.77% of the shares in Cumnock Coal Limited (see note 11). The holders of those shares have no rights against any other member of the Enex Group company.
- A holding of 33.47% of the shares of Oakbridge Pty Limited (see note 11). The holders of these shares have no rights against any other Enex Group company.

Yours faithfully

Ernst & Young LLP

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20 March 2002

Dear Sirs

DUIKER MINING (PROPRIETARY) LIMITED ("DUIKER") AND ITS SUBSIDIARIES AND ASSOCIATES AND DUIKER MARKETING AG (THE "DUIKER GROUP")

1. Introduction

We report on the financial information set out below. This financial information has been prepared for inclusion in the listing particulars dated 20 March 2002 (the "Listing Particulars") of Xstrata plc ("Xstrata").

Basis of preparation

The financial information set out on pages 191 to 216 is based on the audited consolidated financial statements of Duiker and its subsidiaries for the year ended 30 September 1999, the fifteen month period ended 31 December 2000 and the year ended 31 December 2001 and has been prepared on the basis set out on page 195, after making such adjustments as considered necessary. Duiker prepares its consolidated financial statements in South African Rand in accordance with South African Statements of Generally Accepted Accounting Practice. Adjustments have been made to present the financial information in the Group's reporting currency, US dollars, and in accordance with United Kingdom Generally Accepted Accounting Practice ("UK GAAP").

On 15 November 2000, the ultimate holding company, Glencore International, incorporated a wholly owned subsidiary, Duiker Marketing AG, in Switzerland, through which the sales of the Duiker Group are routed subsequent to that date. Duiker Marketing AG is not part of the Duiker Group but has been combined with the results of the Duiker Group, on a merger accounting basis in order to facilitate an understanding of the trading results of the Duiker Group.

Responsibility

Such financial statements are the responsibility of the directors of Duiker who approved their issue.

The directors of Xstrata are responsible for the contents of the Listing Particulars in which this report is included.

It is our responsibility to compile the financial information set out in our report from the financial statements, to form an opinion on the financial information and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards issued by the Auditing Practices Board. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. The evidence included that recorded by the auditors who audited the financial statements underlying the financial information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial statements underlying the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing standards generally accepted in the United States of America and accordingly should not be relied upon as if it had been carried out in accordance with those standards.

Opinion

In our opinion, the financial information gives, for the purposes of the Listing Particulars, a true and fair view of the state of affairs of the Duiker Group as at the dates stated and of its profits, cash flows and recognised gains and losses for the periods then ended.

2. Consolidated Profit and Loss Accounts

	Notes	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
TURNOVER				
Turnover group and share of joint venture's turnover		320,599	372,667	439,932
Less turnover attributable to joint ventures		(51,168)	(62,113)	(68,607)
Continuing operations		250,094	304,825	371,325
Acquisition		–	–	–
		250,094	304,825	371,325
Discontinued operations		19,337	5,729	–
Group turnover		269,431	310,554	371,325
Net operating costs	6.3	(239,976)	(285,346)	(226,921)
OPERATING PROFIT	6.4	29,455	25,208	144,404
Continuing operations		33,722	25,241	144,404
Acquisition		–	674	–
		33,722	25,915	144,404
Discontinued operations		(4,267)	(707)	–
Income from interests in joint ventures	6.14(b)	11,488	14,000	32,123
Income from interests in associated undertakings	6.14(a)	8,490	7,275	24,665
TOTAL OPERATING PROFIT		49,433	46,483	201,192
Continuing operations:				
Profit on disposal of investments	6.5	–	5,912	–
(Loss)/profit on disposal of fixed assets	6.5	–	(746)	131
PROFIT ON ORDINARY ACTIVITIES BEFORE INTEREST AND TAXATION		49,433	51,649	201,323
Net interest payable	6.8	(19,889)	(18,918)	(7,104)
PROFIT ON ORDINARY ACTIVITIES BEFORE TAXATION		29,544	32,731	194,219
Tax on profit on ordinary activities	6.9	(6,821)	(1,498)	(40,133)
PROFIT ON ORDINARY ACTIVITIES AFTER TAXATION		22,723	31,233	154,086
DIVIDENDS				
Ordinary dividend on equity shares	6.10	(7,857)	–	(66,683)
RETAINED PROFIT FOR THE PERIOD/YEAR		14,866	31,233	87,403
Earnings per share – basic and diluted	6.11	US$0.07	US$0.09	US$0.45

Note on Historical Cost Profit and Losses

There is no difference between the profit as reported and the profit that would be recognised on an historical cost basis.

3. Statement of Total Recognised Gains and Losses

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Profit for the year/period	22,723	31,233	**154,086**
Unrealised growth in rehabilitation investment fund	3,001	2,348	**2,652**
Exchange differences on translation of local currency financial statements to US dollars	(4,825)	(51,909)	**(98,828)**
Exchange difference on retranslation of net assets of subsidiary undertaking	(42)	174	**(90)**
TOTAL RECOGNISED GAINS AND LOSSES RELATING TO THE YEAR/PERIOD	20,857	(18,154)	**57,820**

RECONCILIATION OF SHAREHOLDERS' FUNDS

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Total recognised gains and losses	20,857	(18,154)	**57,820**
Dividends paid	(7,857)	–	**(66,683)**
Reduction of share premium account	–	–	**(33,624)**
	13,000	(18,154)	**(42,487)**
Other movements:			
New shares issued	552	18	**56**
Total movements during the year/period	13,552	(18,136)	**(42,431)**
Shareholders' funds at beginning of period	224,261	237,813	**219,677**
Shareholders' funds at end of period	237,813	219,677	**177,246**

4. Consolidated Balance Sheets

	Notes	At 30 September 1999 US$000	At 30 September 1999 US$000	At 31December 2000 US$000	At 31December 2000 US$000	At 31December 2001 US$000	At 31December 2001 US$000
FIXED ASSETS							
Intangible assets	6.12		(89)		–		–
Tangible assets	6.13		326,201		256,463		**205,351**
Investments	6.14						
Investments in joint ventures:							
Share of gross assets		17,946		16,003		**26,022**	
Share of gross liabilities		(6,328)		(5,622)		**(3,106)**	
Loans to joint ventures		31,780		21,108		–	
		43,398		31,489		**22,916**	
Investment in associate		30,383		29,430		–	
Other investments		26,486		22,690		**16,219**	
			100,267		83,609		**39,135**
			426,379		340,072		**244,486**
CURRENT ASSETS							
Stocks	6.15	30,161		17,651		**24,646**	
Debtors	6.16	43,272		54,615		**45,093**	
Cash at bank and in hand		1,117		10,192		**11,243**	
		74,550		82,458		**80,982**	
CREDITORS: amounts falling due within one year	6.17	(73,925)		(83,565)		**(68,943)**	
NET CURRENT ASSETS			625		(1,107)		**12,039**
TOTAL ASSETS LESS CURRENT LIABILITIES			427,004		338,965		**256,525**
CREDITORS: amounts falling due after more than one year	6.18		(99,557)		(58,908)		**(21,307)**
PROVISION FOR LIABILITIES AND CHARGES	6.20		(89,634)		(60,380)		**(57,972)**
			237,813		219,677		**177,246**
CAPITAL AND RESERVES							
Called up share capital	6.21		1,965		1,965		**2,021**
Share premium account	6.22		158,738		158,756		**125,132**
Other reserves	6.22		(14)		160		**70**
Foreign currency translation reserve	6.22		930		(50,979)		**(149,807)**
Profit and loss account	6.22		76,194		109,775		**199,830**
			237,813		219,677		**177,246**

5. Statement of Consolidated Cash Flows

	Notes	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
NET CASH INFLOW FROM OPERATING ACTIVITIES	6.23(a)	66,919	38,574	**99,155**
DIVIDENDS FROM JOINT VENTURE AND ASSOCIATES				
Distributions received from associates		12,354	12,936	**26,077**
Distributions received from joint ventures		6,510	10,926	**9,093**
		18,864	23,862	**35,170**
RETURNS ON INVESTMENTS AND SERVICING OF FINANCE				
Interest received		1,622	1,138	**568**
Interest paid		(19,478)	(18,566)	**(6,130)**
		(17,856)	(17,428)	**(5,562)**
TAXATION				
Tax paid		(16,219)	(3,794)	**(19,680)**
CAPITAL EXPENDITURE AND FINANCIAL INVESTMENT				
Payments to acquire tangible fixed assets		(35,794)	(23,161)	**(36,421)**
Receipts from sales of tangible fixed assets		776	2,511	**1,248**
Cash contribution to rehabilitation funds		(4,935)	(1,005)	**-**
Receipts from rehabilitation fund		-	954	**2,419**
Receipts from sales of investments		659	-	**-**
Funding to joint ventures		(47,899)	(52,349)	**(22,042)**
		(87,193)	(73,050)	**(54,796)**
ACQUISITIONS AND DISPOSALS				
Sale of subsidiary undertaking	6.14	-	1,508	**-**
Purchase of subsidiary undertaking	6.14	-	(2,408)	**-**
Cash acquired			(25)	**89**
Advances to associates for capital		(13,833)	(13,679)	**-**
		(13,833)	(14,604)	**89**
EQUITY DIVIDENDS PAID		(15,713)	-	**(66,683)**
NET CASH (OUTFLOW)/INFLOW BEFORE FINANCING		(65,031)	(46,440)	**(12,307)**
FINANCING				
Issue of ordinary share capital		552	18	**56**
Payment from share premium	6.22	-	-	**(33,624)**
Repayments from joint ventures		47,238	59,526	**57,891**
New short-term borrowings	6.23(b)	-	27,887	**-**
Repayment of long-term loans	6.23(b)	(14,309)	(19,057)	**(21,733)**
		33,481	68,374	**2,590**
(DECREASE)/INCREASE IN CASH	6.23(b)	(31,550)	21,934	**(9,717)**

RECONCILIATION OF NET CASH FLOW TO MOVEMENT IN NET DEBT

	Notes	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
(Decrease)/Increase in cash		**(31,550)**	**21,934**	**(9,717)**
Cash inflow from (repayments)/increase in loans		-	(27,887)	**-**
Repayment of long-term loans		14,309	19,057	**21,733**
Change in net debt resulting from cash flows	6.23(b)	(17,241)	13,104	**12,016**
Disposed of during the year		-	3,641	**-**
Exchange differences		(1,226)	20,907	**25,393**
MOVEMENT IN NET DEBT		(18,467)	37,652	**37,409**
NET (DEBT)/CASH AT BEGINNING OF PERIOD	6.23(b)	(93,303)	(111,770)	**(74,118)**
NET (DEBT)/CASH AT END OF PERIOD	6.23(b)	(111,770)	(74,118)	**(36,709)**

6. Notes to the Consolidated Financial Information

1. Accounting Policies

Basis of preparation

The financial information has been prepared under the historical cost and in accordance with applicable UK accounting standards including early adoption of Financial Reporting Standard 19; Deferred Taxation. The financial information is based upon the consolidated financial statements of Duiker Mining (Pty) Limited and all its subsidiary undertakings, drawn up for the year ended 30 September 1999, the 15-month period to 31 December 2000 and the year ended 31 December 2001, which have been prepared on the basis of South African Generally Accepted Accounting Practice.

Duiker Marketing AG, a wholly owned subsidiary incorporated in Switzerland on 15 November 2000, has been combined with the results of the Duiker Group, on a merger accounting basis in order to facilitate an understanding of the trading results of the Duiker Group. The sales of the Duiker Group are routed through Duiker Marketing AG subsequent to that date.

Translation of financial statements

The functional currency of Duiker is the South African Rand. The accounts have been translated into US dollars by converting the profit and loss account at the average rate for the reporting period and the balance sheet at the rate on the balance sheet date. The exchange difference arising on the retranslation of opening net assets, for the purposes of preparing this financial information in US dollars, is taken directly to reserves. The exchange rates applied are set out below.

Basis of consolidation

The financial information consolidates the accounts of Duiker Mining (Pty) Limited and all its subsidiary undertakings ("subsidiaries"), drawn up for the year ended 30 September 1999, the 15-month period to 31 December 2000 and the year ended 31 December 2001.

Duiker Marketing AG was incorporated on 15 November 2000 as a wholly owned subsidiary of Glencore International AG. The financial results and net assets of Duiker and Duiker Marketing AG have been aggregated from this date in order to present the combined financial information of the Duiker Group.

LSA Minerals Limited has been included in the financial information using the acquisition method of accounting. Accordingly, the consolidated profit and loss account and statement of cash flows include the results and cash flows of LSA Minerals Limited for the period from its acquisition on 29 February 2000. The purchase consideration has been allocated to assets and liabilities on the basis of fair value at the date of acquisition.

The consolidated profit and loss account and statement of cash flows also include the results and cash flows of Bosveld Mines (Proprietary) Limited for the period to 1 September 2000, the date of its sale outside the Duiker Group. The results of the Kwazulu Natal Anthracite mining division are included for the period to 16 November 1999, the date of its sale.

Undertakings, other than subsidiary undertakings, in which the Duiker Group has an investment and over whose operating and financial policies the Duiker Group exerts a significant influence are treated as associated undertakings. The financial information includes the appropriate share of these undertakings' results and reserves based on audited accounts to 30 September 1999, 31 December 2000 and 31 December 2001.

Entities in which the Duiker Group holds an interest on a long-term basis and which are jointly controlled by the Duiker Group and one or more other ventures under a contractual arrangement are treated as joint ventures. In the Duiker Group accounts, joint ventures are accounted for using the gross equity method.

Foreign currencies

Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction or at the contracted rate if the transaction is covered by a forward exchange contract. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date or if appropriate at the forward contract rate.

The accounts of overseas subsidiary undertakings are translated at the rate of exchange ruling at the balance sheet date. The exchange difference arising on the retranslation of opening net assets is taken directly to reserves. All other translation differences are taken to the profit and loss account with the exception of differences on foreign currency borrowings to the extent that they are used to finance or provide a hedge against Duiker Group equity investments in foreign enterprises, which are taken directly to reserves together with the exchange difference on the net investment in these enterprises.

The following exchange rates have been applied:

Currency rates (US$1)	30 September 1999	Average 1999	31 December 2000	Average 2000	31 December 2001	Average 2001
South African Rand (ZAR)	6.016	6.034	7.555	6.780	12,090	8,625

Joint arrangements

The Duiker Group has in relation to its interest in Richards Bay Coal Terminal, Rietspruit Joint Venture and Douglas Tavistock Joint Venture a contractual arrangement with other participants to engage in joint activities that do not create an entity carrying on a trade

or business of its own. The Duiker Group includes its share of assets, liabilities and cash flows measured in accordance with the terms of the arrangement.

Turnover

Turnover is recognised when all significant risks and rewards of ownership of the asset sold are transferred. Certain sales are initially recognised at estimated sales value when the product is shipped. Adjustments are made for variations in coal price, quality and weights between the time of shipment and the final settlement of sale proceeds.

Cost of sales

Cost of sales represents material cost, determined by means of either the weighted average or first in first out (FIFO) method and by applying full absorption costing of manufacturing overheads, plus any other costs directly attributable to the acquisition of materials.

Tangible fixed assets

Tangible fixed assets comprise mainly mining assets including mineral rights, land, prospecting expenditure, development expenditure, shafts, buildings, equipment, vehicles and the Duiker Group's share of the port capacity of the Richards Bay Coal Terminal.

The cost of a tangible fixed asset comprises its purchase price and any costs directly attributable to bringing it into working condition for its intended use.

Mining licences

Mining licences are carried at cost until such time as the properties to which they relate are brought into production, at which time depreciation is charged on a straight-line basis over the estimated useful life of the ore body to which they relate.

Capitalised amounts are written-off if the property is abandoned or when there is an impairment in value.

Land and buildings

Freehold land is stated at cost. Buildings are stated at cost less accumulated depreciation. Depreciation is applied on a straight-line basis over the life of the mine (maximum of 30 years).

Mineral properties and mine development expenditure

Costs of acquiring mineral properties are capitalised on the balance sheet in the year in which they are incurred. Capitalised costs (development expenditure) include interest and financing costs relating to the construction of plant and equipment and costs associated with a startup period where the asset is available for use but incapable of operating at normal levels without a commissioning period. Interest and financing costs are capitalised only for those projects for which funds have been borrowed.

Mineral properties and capitalised costs are, upon commencement of production, amortised using the unit of production method based on the estimated life of the ore body to which they relate or are written-off if the property is abandoned or when there is a permanent impairment in value.

Prospecting and exploration

Prospecting and exploration expenditure is capitalised where the probability of establishing a commercially viable proposition is assured, otherwise it is written-off. Once production commences the capitalised expenditure is amortised over the estimated working life of the mine.

Plant and equipment

Items of property, plant and equipment are stated at cost less accumulated depreciation.

Expenditure on repairs and maintenance to restore or maintain the initially assessed expected future economic benefits is recognised as an expense when incurred.

Depreciation

Depreciation is provided on other tangible fixed assets, with the exception of land, at rates calculated to write-off the cost or valuation, less estimated residual value based on prices prevailing at the date of acquisition or revaluation, of each asset evenly over its expected useful life as follows:

Buildings	Life of mine, maximum of 30 years
Developed mineral rights	Life of mine, maximum of 30 years
Furniture and fittings	5 years
Vehicles	4 years
Plant and machinery	4 years to life of mine, maximum of 30 years

Impairment

The carrying amounts of fixed assets are reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable. If there are indicators of impairment, an exercise is undertaken to determine whether the carrying values are in excess of their recoverable amount. Such review is undertaken on income generating units ("IGU").

A previously recognised impairment loss is reversed where the recoverable amount increases as a result of changes in economic conditions or in the expected use of the asset, but not to an amount higher that the amount that would have been determined (net of depreciation) had no impairment been recognised in prior years.

Stocks

Stocks are stated at the lower of cost and net realisable value. Cost includes all costs incurred in bringing each product to its present location and condition. Stock is categorised as follows:

- Raw materials and consumables: materials, goods or supplies (including energy sources) to be either directly or indirectly consumed in the production process.
- Work in progress: items stored in an intermediate state that have not yet passed through all stages of production; and
- Finished goods: products and materials that have passed all stages of the production process.

Net realisable value is based on estimated selling price less any further costs expected to be incurred to completion and disposal.

Provisions for liabilities and charges

Provisions are recognised when the Duiker Group has a present obligation, as a result of past events, and it is probable that an outflow of resources that can be reliably estimated will be required to settle such an obligation.

Environmental protection, rehabilitation and closure costs

Provision is made for close down and restoration and for environmental rehabilitation costs (which include the dismantling and demolition of infrastructure, removal of residual materials and remediation of disturbed areas) in the accounting period when the related environmental disturbance occurs, based on the estimated future costs. The discount rate used to adjust the provision to its discounted amount is a pre-tax rate, adjusted for inflation, reflecting current market assessments of the time value of money. At the time of establishing the provision, a corresponding asset is capitalised and depreciated over future production from the mine to which it relates.

The provision is reviewed on an annual basis for changes in cost estimates, lives of operations or discount rates.

The increase in the discounted amount arising from the passage of time is reflected as an interest charge in the profit and loss account.

Deferred taxation

Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date, with the following exceptions:

- where fixed assets have been revalued, provision is made for deferred tax only to the extent that, at the balance sheet date, there is a binding agreement to dispose of the assets concerned. However, no provision is made where, on the basis of all available evidence at the balance sheet date, it is more likely than not that the taxable gain will be rolled over into replacement assets and charged to tax only where the replacement assets are sold;
- provision is made for deferred tax that would arise on remittance of the retained earnings of overseas subsidiaries only to the extent that, at the balance sheet date, dividends have been accrued as receivable; and
- deferred tax assets are recognised only to the extent that the directors consider that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Pensions and other post-retirement obligations

The Duiker Group participates in several defined benefit and defined contribution pension schemes, all of which require contributions to be made to separately administered funds. The assets of these schemes are held separately from those of the Duiker Group, being held in separate funds by the trustees of the respective plans. Contributions to the defined benefits schemes are charged to the profit and loss account so as to spread the cost of pensions over employees' working lives with the Duiker Group. The contribution rate is as recommended by a qualified actuary on the basis of triennial valuations, using the projected unit method. Contributions to defined contribution plans are charged against income as incurred.

The Duiker Group has agreed to provide certain additional post-retirement benefits to employees. The estimated cost of providing such benefits is charged against profits on a systematic basis over the employees' working lives within the Duiker Group.

Capital instruments

Shares are included in shareholders' funds. Other instruments are classified as liabilities if they contain an obligation to transfer economic benefits and if not they are included in shareholders' funds.

Financial instruments

Measurement

Financial instruments are initially measured at cost, including transaction costs.

Investments

The investment in the rehabilitation trust funds are measured at fair value based on the market price of the investments held by the trust fund. Gains in the Rehabilitation Trust Fund are recognised in the Statement of Recognised Gains and Losses.

Other investments is measured at cost less accumulated impairment losses.

Other financial assets

Other financial assets originated by the Duiker Group are stated at cost less a provision for doubtful debts.

Financial liabilities

Loans are recognised at inception at the fair value of the proceeds received net of issue costs. The finance cost recognised in the profit and loss account is allocated to period over the term of the loan at a constant rate on the carrying amount.

2. Turnover and segmental analysis

Turnover represents the gross revenue from the sale of coal, at invoiced value, net of applicable sales taxes.

The Duiker Group operates in the mining and extraction of coal. It operates primarily within the Republic of South Africa. The turnover, both by source and destination, of the associate and the joint ventures, all relate to mining of bituminous coal in the Republic of South Africa.

The discontinued operations comprise the following:

- Bosveld Mines (Proprietary) Limited, the subsidiary that operated the Duiker Group's gold operations. These operations were discontinued in August 1999 and the subsidiary was sold on 1 September 2000; and
- the Kwazulu Natal Anthracite operations which were sold on 16 November 1999. These operations were treated as a division of Duiker Mining Company Limited.

The results of LSA Minerals Limited, which was acquired on 29 February 2000, relate to coal mining and mineral rights. Its turnover, both by source and destination, all relates to the Republic of South Africa.

Turnover, consolidated profit on ordinary activities before tax and net assets by area of activity are analysed as follows:

Segmental analysis by function – for the year ended 30 September 1999

	Anthracite US$000	Bituminous Coal US$000	Gold US$000	Total US$000
TURNOVER				
Continuing operations	–	250,094	–	250,094
Discontinued operations	16,620	–	2,717	19,337
	16,620	250,094	2,717	269,431
SEGMENT PROFIT				
Continuing operations	–	39,948	–	39,948
Discontinued operations	(1,575)	–	(2,692)	(4,267)
	(1,575)	39,948	(2,692)	35,681
Common costs				(6,226)
Group operating profit				29,455
Profit before tax of associated undertakings	–	8,490	–	8,490
Profit before tax of joint ventures	–	11,488	–	11,488
Total operating profit before exceptional items				49,433
Net interest paid	(209)	(19,656)	(24)	(19,889)
Profit on ordinary activities before taxation				29,544

	Anthracite US$000	Bituminous Coal US$000	Gold US$000	Total US$000
NET ASSETS				
Continuing operations	–	248,546	–	248,546
Discontinued operations	5,255	–	(227)	5,028
	5,255	248,546	(227)	253,574
Unallocated net assets				(89,542)
Net assets of associated undertakings	–	30,383	–	30,383
Net assets of joint ventures	–	43,398	–	43,398
Total net assets				**237,813**

Unallocated net assets comprise certain fixed assets, net debt, taxation and dividends.

Segmental analysis by function – for the 15 months ended 31 December 2000

	Anthracite US$000	Bituminous Coal US$000	Total US$000
TURNOVER			
Continuing operations	–	304,825	304,825
Discontinued operations	5,729	–	5,729
	5,729	304,825	310,554
SEGMENT PROFIT			
Continuing operations	–	37,436	37,436
Discontinued operations	(707)	–	(707)
	(707)	37,436	36,729
Common costs			(11,521)
Group operating profit			25,208
Profit before tax of associated undertakings	–	7,275	7,275
Profit before tax of joint ventures	–	14,000	14,000
Total operating profit before exceptional items			46,483
Exceptional items	–	5,166	5,166
Net interest paid		(18,918)	(18,918)
Profit on ordinary activities before taxation			32,731
Operating profit of acquisition included in the above			674
NET ASSETS			
Continuing operations	–	173,756	173,756
Discontinued operations	–	–	–
	–	173,756	173,756
Unallocated net assets			(14,998)
Net assets of associated undertaking	–	29,430	29,430
Net assets of joint ventures	–	31,489	31,489
Total net assets			**219,677**
Net assets of acquisition included in the above			**2,165**

Unallocated net assets comprise certain fixed assets, net debt, taxation and dividends.

Segmental analysis by function – for the year ended 31 December 2001

In 2001, all turnover, profit on ordinary activities, and total net assets are derived from the sale of coal.

Segmental analysis by geographical area – for the year ended 30 September 1999

	Southern Africa US$000	Europe US$000	Middle East US$000	Rest of the world US$000	Total US$000
TURNOVER					
Turnover by destination:					
Continuing operations	44,142	118,870	40,215	46,867	250,094
Discontinued operations	19,337	–	–	–	19,337
	63,479	**118,870**	**40,215**	**46,867**	**269,431**

All turnover originates from the operations in South Africa.

Segmental analysis by geographical area – for the 15 months ended 31 December 2000

	Southern Africa US$000	Europe US$000	Middle East US$000	Rest of the world US$000	Total US$000
TURNOVER					
Turnover by destination:					
Continuing operations	41,913	139,275	52,156	71,481	304,825
Discontinued operations	5,729	–	–	–	5,729
	47,642	**139,275**	**52,156**	**71,481**	**310,554**

All turnover originates from the operations in South Africa.

Segmental analysis by geographical area – for the year ended 31 December 2001

	Southern Africa US$000	Europe US$000	Middle East US$000	Rest of the world US$000	Total US$000
TURNOVER					
Turnover by destination:					
Continuing operations	45,156	326,169	–	–	371,325
Discontinued operations	–	–	–	–	–
	45,156	**326,169**	**–**	**–**	**371,325**

All turnover originates from the operations in South Africa.

3. Net Operating Costs

	Year ended 30 September 1999			15 months ended 31 December 2000			Year ended 31 December 2001		
	Continuing US$000	Discontinued US$000	Total US$000	Continuing US$000	Discontinued US$000	Total US$000	Continuing US$000	Discontinued US$000	Total US$000
Cost of sales	144,719	20,861	165,580	189,698	3,913	193,611	**185,689**	–	**185,689**
Distribution costs	61,407	7,445	68,852	78,557	522	79,079	**51,319**	–	**51,319**
Administrative expenses	7,619	4,099	11,718	14,750	–	14,750	**8,653**	–	**8,653**
Other operating income	(6,174)	–	(6,174)	(2,094)	–	(2,094)	**(18,740)**	–	**(18,740)**
Net operating costs	207,571	32,405	239,976	280,911	4,435	285,346	**226,921**	–	**226,921**
Gross profit	105,375	(1,524)	103,851	115,127	1,816	116,993	**185,636**	–	**185,636**

4. Operating Profit

This is stated after charging:

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Auditors' remuneration – audit services	274	399	**118**
Prospecting expenditure written-off	516	104	**174**
Depreciation charge	23,820	21,537	**15,469**
Operating lease payments (property)	158	192	**136**

5. Exceptional Items

	Year ended 30 September 1999 US$000	Period ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Recognised below operating profit:			
(Loss)/profit on disposal of plant and machinery	–	(746)	**131**
Profit on disposal of investments	–	5,912	**–**
	–	5,166	**131**

The effect on the taxation charge for the year of the exceptional items recognised below operating profit is disclosed in note 9.

6. Directors' Emoluments

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Basic salary and fees	396	401	308
Benefits	116	160	177
Performance related bonuses	131	11	82
Pension contributions	56	111	9
	699	683	576

	Year ended 30 September 1999	15 months ended 31 December 2000	Year ended 31 December 2001
Members of pension schemes (all in money purchase schemes)	4	6	6

The remuneration and pension entitlements of the highest paid director are as follows:

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Basic salary and fees	148	203	159
Benefits	36	31	94
Performance related bonuses	54	-	-
Pension contributions	34	89	4
	272	323	257

7. Staff Costs

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Wages and salaries	46,500	37,311	45,184
Pension costs (note 26)	3,579	3,050	3,130
	50,079	40,361	48,314

The average monthly number of employees during the year was made up as follows:

	Year ended 30 September 1999	15 months ended 31 December 2000	Year ended 31 December 2001
Administration	213	174	220
Mining - Bituminous Coal	3,895	3,768	4,718
- Anthracite	580	-	-
- Gold	303	-	-
	4,991	3,942	4,938

8. Interest Payable and Similar Charges

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Bank loans and overdrafts	19,466	17,812	5,948
Other	12	754	182
	19,478	18,566	6,130
Interest receivable	(1,622)	(1,138)	(568)
Discounting on the rehabilitation provision	2,033	1,490	1,542
Net interest payable and similar charges	19,889	18,918	7,104

9. Tax on Profit on Ordinary Activities

Duiker is incorporated in South Africa and is subject to taxation under the South African tax regime. In 2000 Duiker Marketing AG was also incorporated and is subject to taxation under the Swiss tax regime.

The taxation charge is made up as follows:

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Foreign tax:			
Current tax on income for the period	(3,236)	(7,603)	**(33,754)**
Associated undertakings	(1,407)	(2,183)	–
Deferred taxation (note 20)			
Origination and reversal of timing differences	(7,182)	8,288	**(6,379)**
Effect of decreased tax rate on opening balance	5,004	–	–
Total tax (charge)/credit on profit on ordinary activities	(6,821)	(1,498)	**(40,133)**

The statutory tax provision at the weighted average rate is generally calculated on the basis of pre-tax earnings or losses in each country and the applicable statutory tax rates. The difference between the effective provision for income tax and the statutory tax provision at the weighted average tax rate is reconciled as follows:

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Statutory provision for tax at weighted average rate*	8,863	9,819	**44,282**
Permanent differences	2,571	(5,949)	**(4,384)**
Movement in deferred tax provision	(2,178)	8,288	**(6,379)**
Effect of reduction in tax rate on deferred tax provision	(5,004)	–	–
Other	391	(2,372)	235
Total current tax	4,643	9,786	**33,754**

*Weighted average rates applied by period are: 1999 – 30%; 2000 – 30% and 2001 – 22.8%.

Deferred tax assets and liabilities for 2001, 2000 and 1999 reflect the impact of timing differences between amounts of assets and liabilities for financial reporting purposes and the amounts of such assets and liabilities as measured for tax purposes.

The tax effect in the profit and loss account relating to the exceptional items recognised below operating profit is a credit of nil (2000 – nil; 1999 – nil).

10. Dividends

	Year ended 30 September 1999 US$000	Period ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Dividends:			
Equity dividends on ordinary shares:			
Declared and paid by Duiker US$0.02 per share	7,857	–	–
Declared and paid by Duiker Marketing AG	N/A	N/A	**66,683**

11. Earnings per Ordinary Share

The calculation of earnings per ordinary share is based on earnings, of US$154 million. (2000 – US$31 million; 1999 – US$23 million) and on 339,269,000. (2000 – 339,169,000; 1999 – 339,139,000) ordinary shares, being the weighted average number of ordinary shares in issue during the year. There are no dilutive shares.

12. Intangible Fixed Assets

Negative goodwill was disposed of during the 15 months ended 31 December 2000.

13 Tangible Fixed Assets

Tangible fixed assets comprise mining assets

	Mining Assets US$000
Cost:	
At 1 October 1999	380,450
Exchange rate adjustment	(77,845)
Additions	24,696
Acquisition of subsidiary undertaking	1,427
Disposals	(4,284)
Disposal of subsidiary undertaking	(18,490)
At 31 December 2000	305,954
Exchange rate adjustment	(141,725)
Additions	34,368
Disposals	(2,182)
Reclassification	61,879
At 31 December 2001	**258,294**
Depreciation:	
At 1 October 1999	54,249
Exchange rate adjustment	(11,770)
Provided during the year	21,537
Disposals	(1,028)
Disposal of subsidiary undertaking	(13,497)
At 31 December 2000	**49,491**
Exchange rate adjustment	(27,409)
Provided during the year	15,469
Disposals	(1,065)
Reclassification	16,457
At 31 December 2001	**52,943**
Net book value at 31 December 2001	**205,351**
Net book value at 1 January 2001	256,463
Net book value at 1 October 1999	326,201

An analysis of the mining assets by principal category is shown below

	Land and buildings US$000	Mineral rights US$000	Fixtures and fittings US$000	Vehicles US$000	Plant and machinery US$000	Total US$000
Cost						
At 30 September 1999	154,157	54,776	5,270	7,494	158,753	380,450
At 31 December 2000	40,371	86,338	6,397	4,765	168,083	305,954
At 31 December 2001	**26,152**	**53,543**	**4,193**	**2,962**	**171,444**	**258,294**
Depreciation						
At 30 September 1999	14,485	11,048	1,539	3,019	24,158	54,249
At 31 December 2000	13,029	16,921	4,128	2,754	12,659	49,491
At 31 December 2001	**8,775**	**12,825**	**3,160**	**1,649**	**26,534**	**52,943**
Net book value						
At 30 September 1999	139,672	43,728	3,731	4,475	134,595	326,201
At 31 December 2000	27,342	69,417	2,269	2,011	155,424	256,463
At 31 December 2001	**17,377**	**40,718**	**1,033**	**1,313**	**144,910**	**205,351**

14. Investments

	31 December 2000 US$000	31 December 2001 US$000
Associated undertaking (a)	29,430	–
Joint ventures (b)	31,489	**22,916**
Rehabilitation trust fund (c)	22,218	**16,047**
Other unlisted fixed asset investments (d)	472	**172**
	83,609	**39,135**

(a) Associated undertaking

	Share of net assets US$000	Amounts due from associate US$000	Total US$000
At 1 October 1999	12,060	18,323	30,383
Share of profit before tax of associated undertaking	7,275	–	7,275
Share of tax of associated undertaking	(2,183)	–	(2,183)
Advances to associate for capital	–	13,679	13,679
Distributions from associate	(12,936)	–	(12,936)
Exchange adjustment	(1,651)	(5,137)	(6,788)
At 31 December 2000	2,565	26,865	29,430
Distribution from associated undertakings	–	(26,077)	(26,077)
Share of profit before tax of associated undertaking	24,665	–	24,665
Reclassification	(27,230)	(788)	(28,018)
At 31 December 2001	**–**	**–**	**–**

During 2001 the associated undertaking, Douglas Tavistock was reclassified as a joint arrangement following a change in its organisational structure whereby the Duiker Group undertook the marketing and control over its share of coal produced.

The Duiker Group's share of retained profits of the associated undertaking at 31 December 2000 was US$12,174,000; (1999 – US$7,082,000).

The Duiker Group's share of the net assets of the Douglas Tavistock joint venture is as follows:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Tangible fixed assets	29,485	–
Current assets	6,160	–
Current liabilities	(4,752)	–
Provisions	(1,463)	–
	29,430	–

The Duiker Group's share of the turnover of the Douglas Tavistock joint venture is as follows:

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Turnover	58,776	76,032	**69,625**

(b) Joint ventures

	Share of retained profits US$000	Amounts due from joint ventures US$000	Total US$000
At 1 October 1999	11,618	31,780	43,398
Distribution of Duiker Group's share	(10,926)	–	(10,926)
Share of profit retained by joint ventures	13,982	–	13,982
Net repayment of amounts due from joint ventures	–	(4,678)	(4,678)
Exchange adjustment	(4,293)	(5,994)	(10,287)
At 31 December 2000	10,381	21,108	31,489
Distribution of Duiker Group's share	(9,093)	–	(9,093)
Share of profit retained by joint ventures	32,123	–	32,123
Net repayment of amounts due from joint ventures	–	(18,489)	(18,489)
Exchange adjustment	(10,495)	(2,619)	(13,114)
At 31 December 2001	22,916	–	**22,916**

The Duiker Group's share of the net assets of the joint ventures are as follows:

TAVISTOCK/TESA JOINT VENTURE

	At 31 December 2000 US$000	At 31 December 2001 US$000
Tangible fixed assets	31,778	**19,839**
Current assets	5,333	**6,183**
Current liabilities	(3,644)	**(1,776)**
Provisions	(1,978)	**(1,330)**
	31,489	**22,916**

The Duiker Group's share of the turnover and profit before tax of the Tavistock/TESA joint venture is as follows;

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Turnover	51,168	62,113	**68,607**
Profit before and after tax	11,488	14,000	**32,123**

As Tavistock/TESA is not an incorporated entity, there is no tax charge directly attributable to it.

(c) Investment in Rehabilitation Trust Funds

	US$000
At 1 October 1999	25,847
Growth for the year	2,348
Rehabilitation expenses paid out	(954)
Cash contributions made during the year	1,005
Transfer to associate	(348)
Disposal of subsidiary	(228)
Exchange movement	(5,452)
At 31 December 2000	22,218
Exchange rate adjustment	(9,601)
Growth for the year	2,652
Rehabilitation expenses paid out	(2,419)
Cash contributions made during the year	–
Reclassification in respect of Douglas Tavistock	3,197
At 31 December 2001	**16,047**

The Duiker Group makes cash contributions to a trust fund, the sole purpose of which is to provide funds for the Duiker Group's rehabilitation liability relating to the eventual closure of the Duiker Group's mines. Amounts are paid out from the trust fund following completion and approval of the rehabilitation work by the South African Department of Minerals and Energy. The contributions to the trust fund are placed with investment bankers who are responsible for making investments in equity and money market instruments.

The trust funds are to be used according to the terms of the trust deed and are not available for the general purpose of the Duiker Group.

(d) Other unlisted fixed asset investments

Cost and valuation	Durban Coal Terminal Company Limited US$000	Manhattan Syndicate Limited US$000	Other investments US$000	Total US$000
At 1 October 1999	296	256	87	639
Disposals	-	-	(42)	(42)
Exchange rate adjustment	(66)	(57)	(2)	(125)
At 31 December 2000	230	199	43	472
Disposals	-	(174)	-	(174)
Exchange rate adjustment	(85)	(25)	(16)	(126)
At 31 December 2001	**145**	**-**	**27**	**172**

Details of the principal investments as at 31 December 2001 in which the Duiker Group or Duiker holds 20% or more of the nominal value of any class of share capital are as follows:

Name of company	Holding	Proportion of voting rights and shares held	Nature of business
Subsidiary undertakings			
All held by the company and incorporated in the Republic of South Africa unless indicated.			
Alpha Coal Sales Company AG*	Ordinary shares	100%	Dormant
Arthur Taylor Colliery Management Services Limited†	Ordinary shares	100%	Employment company
Bosveld Mines (Proprietary) Limited (Sold in 2000)	Ordinary shares	100%	Gold mining
Breyten Coal Farms (Proprietary) Limited†	Ordinary shares	100%	Coal mining
Consolidated Collieries Limited†	Ordinary shares	100%	Coal mining
Darty Coal Holdings Limited (Sold in 2000)†	Ordinary shares	100%	Coal mining
Duiker Coal (Proprietary) Limited	Ordinary shares	100%	Coal mining
Steenbok Coal (Proprietary) Limited†	Ordinary shares	100%	Coal mining
Frischgewaad Farm (Proprietary) Limited	Ordinary shares	100%	Trout farming
Manhattan Syndicate Limited	Ordinary shares	49.95%	Holding mineral rights
LSA Minerals Limited (Acquired in 2000)	Ordinary shares	100%	Coal mining
Phoenix Colliery Limited†	Ordinary shares	100%	Coal mining
Rand Collieries and Fuel Limited	Ordinary shares	100%	Coal mining
Rustplaas Properties (Proprietary) Limited†	Ordinary shares	100%	Coal mining
Rustplaas Steenkool (Proprietary) Limited†	Ordinary shares	100%	Coal mining
South Witbank Coal Mines (Proprietary) Limited†	Ordinary shares	100%	Coal mining
Tavistock Collieries (Proprietary) Limited	Ordinary shares	100%	Coal mining
Tselentis Coal (Proprietary) Limited	Ordinary shares	100%	Coal mining
Tselentis Mining (Proprietary) Limited†	Ordinary shares	100%	Coal mining
United Carbon Producers 1990 (Proprietary) Limited	Ordinary shares	100%	Coal mining

* Incorporated in Switzerland.
† Held by a subsidiary undertaking.

Associated undertaking

In the 1999 and 2000 financial periods the Duiker Group held an effective interest of 16% in the Douglas Tavistock Joint Venture. The Duiker Group was able to exercise significant influence over the operating and financial policies but not joint control, over its operations. Accordingly, its results were equity accounted. Although the year end of the associate is 30 June its results have been equity accounted to the period end of the Duiker Group. The associate is involved in the mining of coal.

In the year ended 31 December 2001, a change in the operating agreement of the associate resulted in the Duiker Group being able to exercise joint control over the operations and from this financial period the Douglas Tavistock Joint Venture has been treated as a joint arrangement.

Joint ventures

The Duiker Group has the following interests in joint ventures:

- 50% in TAVISTOCK/TESA Joint Venture
- 50% in Rietspruit Joint Venture
- 16% in the Douglas Tavistock Joint Venture (in 2001 only, in 2000, Douglas Tavistock was an associated undertaking).

All joint ventures are involved in the mining of bituminous coal in South Africa. There has been no change in the effective rates of shareholdings (2000: nil; 1999: nil).

Joint arrangements

The Duiker Group has a 50% interest in the Rietspruit Joint Venture through which the Duiker Group obtains its share of the coal mined. The Duiker Group's interest in the Rietspruit Joint Venture has been accounted for as a joint arrangement.

The Duiker Group also has a 20.91% interest in the service organisation, Richards Bay Coal Terminal Company Limited, through which the shareholders gain access to the coal terminal for their exports. The Duiker Group's interest in Richards Bay Coal Terminal has been accounted for joint arrangement.

Acquisitions and disposals

On 29 February 2000 the Duiker Group acquired LSA Minerals Limited for a consideration of US$2,408,000 satisfied by cash. No goodwill arose on this transaction. The investment in LSA Minerals Limited has been included in the company's balance sheet at its fair value at the date of acquisition.

Analysis of the acquisition of LSA Minerals Limited: **Net assets at date of acquisition:**	**Book value US$000**	**Adjustment US$000**	**Fair value to the Group US$000**
Tangible fixed assets	32	1,395	1,427
Debtors			1,002
Creditors due within one year			(21)
Net assets			2,408
Goodwill arising on acquisition			–
			2,408
Discharged by:			
Cash paid			2,408

The summarised profit and loss account for the period from 1 October 1999 to the date of acquisition is as follows:

	US$000
Turnover	280
Operating profit	278
Profit before tax	278
Taxation	(82)
Profit for the five months ended 29 February 2000	196

LSA Minerals Limited derives income from mining royalties and is included in the Duiker Group's other income.

Analysis of the disposal of Bosveld Mines (Proprietary) Limited

On 1 September 2000, the Duiker Group completed the sale of Bosveld Mines (Proprietary) Limited. The disposal is analysed as follows:

	US$000
Net assets disposed of:	
Intangible assets	(89)
Fixed assets	313
Rehabilitation investment	228
Stocks	120
Debtors	40
Bank	25
Current liabilities	(362)
Long-term creditors and provisions	(4,679)
	(4,404)
Profit on disposal	4,792
Cash proceeds	388

During the year, Bosveld Mines (Proprietory) Limited utilised US$47,000 of the Duiker Group's net operating cash flows and contributed US$282,000 in respect of net returns on investments.

On 1 November 1999, the Duiker Group completed the sale of the trade and certain assets of its KwaZulu-Natal Anthracite mining division. The disposal is analysed as follows:

	US$000
Net assets disposed of:	
Fixed assets	4,680
Provisions	(4,680)
	–
Profit on disposal	1,120
Cash proceeds	1,120

During the year, the KwaZulu-Natal operations generated US$1,507,000 of the Duiker Group's net operating cash flows and utilised US$2,782,000 in respect of net returns on investments.

15. Stocks

	At 31 December 2000 US$000	At 31 December 2001 US$000
Coal	14,521	**22,569**
Mine stores	3,130	**2,077**
	17,651	**24,646**

The difference between purchase price or production cost of stocks and their replacement cost is not material.

16. Debtors

	At 31 December 2000 US$000	At 31 December 2001 US$000
Trade debtors	19,880	**33,165**
Amounts owed by related parties	10,678	**5,837**
Other debtors	24,057	**6,091**
	54,615	**45,093**

17. Creditors: Amounts falling due within one year

	At 31 December 2000 US$000	At 31 December 2001 US$000
Current instalments due on loans	25,401	**15,876**
Bank overdraft	–	**10,768**
Trade creditors	12,466	**5,784**
Corporation tax	2,095	**16,539**
Accruals and other creditors	43,603	**19,976**
	83,565	**68,943**

18. Creditors: Amounts falling due after more than one year

	At 31 December 2000 US$000	At 31 December 2001 US$000
Loans (note 19)	58,908	**21,307**
	58,908	**21,307**

19. Loans

	At 31 December 2000 US$000	At 31 December 2001 US$000
Amounts falling due:		
In one year or less or on demand		
Loans	25,401	**15,876**
Between one and two years	25,712	**15,833**
Between two and five years	27,073	**1,276**
In five years or more	6,123	**4,198**
	84,309	**37,183**
Less: included in creditors: amounts falling due within one year	(25,401)	**(15,876)**
	58,908	**21,307**

Details of loans not wholly repayable within five years are as follows:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Share of unsecured bank loan raised in connection with Richards Bay Coal Terminal Limited (a joint arrangement)	9,221	**5,899**
	9,221	**5,899**

This loan has been used to fund capital expenditure at the Richards Bay Coal Terminal and is denominated in South African Rand and the rate of interest payable is 14.25% variable.

The long term loan is repayable in half-yearly instalments commencing in January 2006 until 2015.

20. Provisions for Liabilities and Charges

	Post-retirement benefits US$000	Retrenchment and gratuities US$000	Rehabilitation US$000	Deferred taxation US$000	Total US$000
At 1 October 1999	6,826	3,263	42,227	37,318	89,634
Increase in the discounted provision as a result of the passage of time	–	–	1,490	–	1,490
Charge for the period	(2,569)	1,084	2,660	(8,288)	(7,113)
Utilised	–	(14)	(2,231)	–	(2,245)
Provision of operations disposed of	–	–	(4,384)	–	(4,384)
Exchange rate adjustment	(1,126)	(775)	(8,349)	(6,752)	(17,002)
At 1 January 2001	3,131	3,558	31,413	22,278	60,380
Exchange adjustment	(1,763)	(1,682)	(14,639)	(12,695)	(30,779)
Increase in the discounted provision as a result of the passage of time	–	–	1,542	–	1,542
Charge for the year	1,056	1,351	2,185	6,379	10,971
Utilised	–	(137)	(2,419)	–	(2,556)
Reclassification	995	–	8,659	8,760	18,414
At 31 December 2001	**3,419**	**3,090**	**26,741**	**24,722**	**57,972**

The rehabilitation and retrenchment provisions fall payable as follows:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Amounts falling due:		
In one year or less or on demand	2,795	**2,363**
Between one and two years	3,781	**3,099**
Between two and five years	15,548	**10,146**
In five years or more	9,289	**11,133**
	31,413	**26,741**

Deferred taxation provided in the accounts is as follows:

	At 31 December 2000 US$000	At 31 December 2001 US$000
Capital allowances in advance of depreciation	29,322	**31,472**
Rehabilitation provision	(3,352)	**(3,208)**
Other timing differences	(3,692)	**(3,542)**
	22,278	**24,722**

Post-retirement benefits refer to medical aid benefits provided by the Duiker Group (see note 26).

The provision for retrenchment refers to the closure of the Klipwal gold mines and the KwaZulu-Natal anthracite mine in 2000 and the closure of the Rietspruit mines in 2002.

21. Share Capital

Duiker Mining (pty) Ltd

Authorised

	At 31 December 2000 thousands	At 31 December 2001 thousands
Ordinary shares of 3.5 ZAR cents each	17,500	**17,500**

Allotted, called up and fully paid	At 31 December 2000 thousands	At 31 December 2001 thousands	At 31 December 2000 US$'000	At 31 December 2001 US$'000
Duiker Mining (Pty) Ltd Ordinary shares of 3.5 ZAR cents each	339,169	339,169	1,965	**1,965**
Duiker Marketing AG Ordinary Shares			–	**56**
Total share capital			1,965	**2,021**

During the year no ordinary shares (2000: 29,700 ordinary shares; 1999: 512,040 ordinary shares) of 3.5 ZAR cents each were issued at a value per share of US$ nil (2000: US$153; 1999 : US$2,970). The shares were issued following the exercise of options in the share incentive scheme trust. This trust was deregistered in April 2000.

Duiker Marketing AG

Duiker Marketing AG was incorporated on 15 November 2000 with an issued and paid up share capital of CHF100,000 (US$56,456) and trading commenced during 2001.

22. Reserves

	Foreign exchange reserve US$000	Share premium account US$000	Other reserves US$000	Profit and loss account US$000
At 1 October 1999	930	158,738	(14)	76,194
Arising on share issues	–	18	–	–
Exchange differences on retranslation of net assets of subsidiary undertakings	–	–	174	–
Growth in rehabilitation funds	–	–	–	2,348
Retained profit for the year	–	–	–	31,233
Exchange difference on retranslation of opening balance sheet	(51,909)	–	–	–
At 1 January 2001	(50,979)	158,756	160	109,775
Capital repayment	–	(33,624)	–	–
Exchange differences on retranslation of net assets of subsidiary undertakings	–	–	(90)	–
Retained profit for the year	–	–	–	87,403
Growth in rehabilitation funds	–	–	–	2,652
Exchange differences on retranslation of opening balance sheet	(98,828)	–		–
At 31 December 2001	**(149,807)**	**125,132**	**70**	**199,830**

During 2001 Duiker Mining reduced its share premium account by making a capital repayment, as permitted by the Companies Act of South Africa, accordingly this is shown in the statement of total recognised gains and losses for the period rather than profit and loss account.

23. Notes to the Statement of Cash Flows

(a) Reconciliation of operating profit to net cash inflow from operating activities

	Year ended 30 September 1999 US$000	15 months ended 31 December 2000 US$000	Year ended 31 December 2001 US$000
Operating profit	29,455	25,208	**144,404**
Depreciation	23,820	21,537	**15,469**
Provision against investments	–	–	**(174)**
Exchange loss	3,251	552	**–**
Movement in provisions	(473)	420	**3,103**
Movement in debtors	(2,780)	(23,631)	**(10,336)**
Movement in stocks	(2,541)	6,790	**(16,107)**
Movement in creditors	16,187	7,698	**(37,204)**
Net cash inflow from operating activities	66,919	38,574	**99,155**

(b) Analysis of net debt

	At 1 October 1998 US$000	Cash flow US$000	Exchange differences US$000	Other non-cash movements US$000	At 30 September 1999 US$000
Cash at bank and in hand	19,808	(18,730)	39	–	1,117
Bank overdrafts	–	(12,820)	(39)	–	(12,859)
Cash	19,808	(31,550)	–	–	(11,742)
Short-term borrowings	(479)	–	8	–	(471)
Long-term borrowings	(112,632)	14,309	(1,234)	–	(99,557)
	(93,303)	(17,241)	(1,226)	–	(111,770)

	At 1 October 1999 US$000	Cash flow US$000	Exchange differences US$000	Other non-cash movements US$000	At 31 December 2000 US$000
Cash at bank and in hand	1,117	10,523	(1,448)	–	10,192
Bank overdrafts	(12,859)	11,411	1,448	–	–
Cash	(11,742)	21,934	–	–	10,192
Short-term borrowings	(471)	(27,887)	2,957	–	(25,401)
Long-term borrowings	(99,557)	19,057	17,950	3,641	(58,909)
	(111,770)	13,104	20,907	3,641	(74,118)

The other non-cash movement relates to the loan included within the balance sheet of Bosveld Mines (Pty) Limited that was disposed of during the period.

	At 1 January 2001 US$000	Cash flow US$000	Exchange differences US$000	Other non-cash movements US$000	At 31 December 2001 US$000
Cash at bank and in hand	10,192	5,375	(4,324)	–	**11,243**
Bank overdrafts	–	(15,092)	4,324	–	**(10,768)**
Cash	10,192	(9,717)	–	–	**475**
Short-term deposits	(25,401)	–	9,524	–	**(15,877)**
Loans	(58,909)	21,733	15,869	–	**(21,307)**
	(74,118)	12,016	25,393	–	**(36,709)**

24. Post Balance Sheet Event

On 21 February 2002, Xstrata plc, Xstrata (Schweiz) AG and Xstrata South Africa (Proprietary) Limited (the "Purchasers"), Xstrata AG and Glencore International AG, Duiker Coal Investments Limited, Duffield Trading Limited, Glencore Finance (Bermuda) Limited and Stychus Invest AG (the "Vendors") entered into the Acquisition agreement to purchase the entire issued share capital of each of Glencore Overseas AG (of which Enex Resources Limited is a wholly owned subsidiary), Duiker Marketing AG and Duiker Mining (Propreitary) Limited (the "Coal Assets") for cash and Ordinary Shares in Xstrata plc with an aggregate value of US$2,067,910,000 (which includes an agreed amount relating to working capital of US$73,000,000), in addition to which Xstrata plc has agreed to assume net indebtedness of Glencore Overseas AG, Duiker Mining (Proprietary) Limited and Duiker Marketing AG and each of their subsidiaries and subsidiary undertakings and where the context requires their associated undertakings and procure the repayment of shareholder loans to Glencore International AG, resulting in a total value of US$2,573,000,000. Completion of the Acquisitions is subject to a number of conditions including Admission of the shares of Xstrata plc to the Official List of the UK Listing Authority.

The acquisition agreement is subject to a number of conditions, including regulatory and third party consents.

25. Capital Commitments

Amounts contracted for but not provided in the accounts amounted to US$2,689,000 (2000 - US$8,071,000; 1999 - US$72,000).The Duiker Group has operating lease commitments in respect of properties of US$177,000 (2000 - US$155,000) that expire after more than five years.

26. Pension Commitments

The Duiker Group participates in a number of pension schemes as follows:

The Mine Employees Pension Fund

This is a defined benefits scheme providing benefits based on final pensionable salary. The fund intends to convert to a defined contributions scheme in 2002.

The most recent valuation was at 30 June 1999 using the Projected Unit Method. This valuation has been updated to 30 June 2000. The assumptions that have the most significant effect on the results of the valuation are those relating to the rate of return on investments and the rate of increase in salaries. It was assumed that the investment return would be 17% as compared to a rate of increase in salaries of 13% in the period up to retirement. It was assumed that the rate of increase of pensions in payment would be 5% per annum.

This is a multi-employer scheme and accordingly, the Duiker Group is unable to identify its share of the underlying assets and liabilities of the scheme, consequently it has been accounted for as a defined contribution scheme. The most recent actuarial valuation at 30 June 2000 showed that the actuarial value of the assets of US$1,408,000,000 (1999: US$1,529,000,000) represented 102.7% of the liabilities at the valuation date, after allowing for expected future increases in earnings. The employer's future service contribution rate remained unchanged as a result of this valuation.

The Sentinel Mining Industry Retirement Fund (formerly the Mine Officials Pension Fund)

This is a defined contributions scheme providing benefits based on the contributions paid by the employer and employee and the returns made on these contributions. The fund previously operated as a defined benefit scheme providing benefits based on final pensionable salary. The fund converted to a defined contributions scheme on 31 March 2001, however members over the age of 55 at conversion retain their defined benefit promise.

The most recent valuation was at 30 June 1999 using the Projected Unit Method. This valuation has been updated to 30 June 2000. The assumptions that have the most significant effect on the results of the valuation are those relating to the rate of return on investments and the rate of increase in salaries. It was assumed that the investment return would be 17% as compared to a rate of increase in salaries of 13% in the period up to retirement. It was assumed that the rate of increase of pensions in payment would be 5% per annum.

This is a multi-employer scheme and accordingly, the Duiker Group is unable to identify its share of the underlying assets and liabilities of the scheme, consequently it has been accounted for as a defined contribution scheme. The most recent actuarial valuation showed that the actuarial value of the assets of US$2,515,000,000 (1999: US$2,722,000,000) represented 91.2% of the liabilities at the valuation date, after allowing for expected future increases in earnings. The employer's future service contribution rate remained unchanged as a result of this valuation as the fund maintained a surplus when valued based on current market values.

There were no outstanding or pre-paid contributions to this fund at 31 December 2001.

The Mineworkers Provident Fund and the Duiker Provident Fund

These are defined contribution schemes providing benefits based on the contributions paid by the employer and employee and the returns made on these contributions.

There were no outstanding or pre-paid contributions to this fund at 31 December 2001.

27 Post-Retirement Benefits other than Pensions

The Duiker Group provides post-retirement medical aid benefits for a number of its employees. Entitlement to these benefits is dependent upon the employee remaining in service until retirement age, and is subject to periodic review. The Duiker Group recognises the estimated liability on an accrual basis over the working life of the eligible employees.

The accumulated post-retirement medical aid obligations and the annual cost of these benefits were determined by independent actuaries as at 1 December 2001. The assumptions used include estimates of life expectancy of between 72 and 77 years of age and long-term estimates of the increases in medical cost of 12.2% per annum, appropriate discount rate of 15% per annum and the level of claims based on the Duiker Group's past experience. Actuarial valuations are conducted annually at which time any shortfalls are funded through increased contributions. The actuarial valuation was last performed at 1 December 2001 and showed an obligation of US$3,416,000 (2000: US$3,137,000) which has been fully provided (see note 20). The scheme is unfunded.

28. Other Related Party Transactions

During the year the Duiker Group entered into the following transactions, in the ordinary course of business, with other related parties:

Related party	Sales to related party US$000	Management fees to related party US$000	Amounts owed to related party US$000	Amounts owed from related party US$000
Glencore International AG				
2001	191,308	-	-	5,837
2000	71,016	-	-	10,678
1999	-	-	-	-
Lonmin Management Services (Pty) Limited				
2001	-	-	-	-
2000	-	95	-	-
1999	-	675	-	-

Duiker Coal Investment Limited is the parent company of the Duiker Group. Glencore International AG is the ultimate holding company and controlling party of the Duiker Group.

Lonmin Management Services (Pty) Limited is a former subsidiary of the Duiker Group. Upon the acquisition of the Duiker Group by Glencore Coal Investment Limited in 2000, Lonmin Management Services (Pty) Limited ceased to be a related party. Prior to the acquisition by Glencore, Lonmin (U.K.) Limited was the parent company and Lonmin PLC was the ultimate holding company of the Duiker Group.

29. Financial Instruments

The Duiker Group's financial instruments comprise borrowings, investments, cash and liquid resources and various items, such as trade debtors, trade creditors and contractual provisions arising in the ordinary course of its operations. The Duiker Group does not acquire, hold or issue derivative instruments for trading purposes.

The main risks associated with the Duiker Group's financial instruments are interest rate risk, liquidity risk, foreign currency risk and credit risk.

Interest rate risk

The Duiker Group finances its operations through a mixture of retained earnings and bank borrowings. Borrowings are made in South African Rand and were also made in US dollars until 2000. These borrowings bear interest at floating rates as disclosed in note 19.

Liquidity risk

The Duiker Group's objective is to maintain a balance between continuity of funding and flexibility through the use of borrowings with a range of maturities. A maturity table for these borrowings is shown in note 19. Short-term flexibility is achieved by the availability of overdraft facilities.

Currency risk

It is the Duiker Group's policy only to enter into forward foreign exchange contracts to manage its exposure to certain foreign currency denominated liabilities. The company has not entered into any such contracts during the period under review. Approximately 80% of the Duiker Group's sales are dollar denominated. The Rand is the functional currency of the Duiker Group. The Duiker Group also has a foreign subsidiary located in Switzerland (in the process of de-registering) whose revenues and expenses are denominated in US dollars and Swiss Francs, respectively.

The only currency exposure requiring reporting under FRS13 was a US dollar loan of US$43.9 million in 1999.

Credit risk

Credit risk represents the bad debts that would be incurred in the event of non payment by debtors. To reduce exposure to credit risk, the Duiker Group evaluates and monitors the credit standing of its customers. Concentration of credit risk is managed by spreading its debtors among a number of customers and geographical areas. Credit risk exposure on financial assets is equal to their carrying amounts on the balance sheet.

The carrying values of the financial assets and liabilities are equal to their fair value. The following disclosures include short-term debtors and liabilities.

Financial liabilities – interest rate and currency profile for the Duiker Group as at 30 September 1999

	Currency	Bearing interest at floating rate US$000	Weighted average floating rate %	Interest free US$000	Total US$000
Borrowings (including bank overdraft)	ZAR	68,986	16.27	–	68,986
	US$	43,902	6.98	–	43,902
Trade creditors and accruals	ZAR	–	–	60,595	60,595
Provisions	ZAR	42,227	5.0	3,263	45,490
		155,115	10.57	63,858	218,973

Financial liabilities – interest rate and currency profile for the Duiker Group as at 31 December 2000

	Currency	Bearing interest at floating rate US$000	Weighted average floating rate %	Interest free US$000	Total US$000
Borrowings	ZAR	84,309	11.52	–	84,309
Trade creditors and accruals	ZAR	–	–	56,069	56,069
Provisions	ZAR	31,413	5.0	3,558	34,971
		115,722	9.75	59,627	175,349

Financial liabilities – interest rate and currency profile for the Duiker Group as at 31 December 2001

	Currency	Bearing interest at floating rate US$000	Weighted average floating rate %	Interest free US$000	Total US$000
Borrowings (including bank overdraft)	ZAR	47,948	11.19	–	47,948
Trade creditors and accruals	ZAR	–	–	22,641	22,641
Provisions	ZAR	26,741	5.0	3,090	29,831
		74,689	8.97	25,731	100,420

Financial assets – interest rate and currency profile for the Duiker Group as at 30 September 1999

	Fixed rate financial assets US$000	Floating rate financial assets US$000	Interest free US$000	Total US$000
South African Rand	–	173	44,067	44,240
US dollar	–	–	24,373	24,373
Swiss Francs	–	966	–	966
	–	1,139	68,440	69,579

The floating rate financial assets are bank accounts which attract interest at commercial rates.

The interest free financial assets consist of investments in unlisted securities and the rehabilitation trust fund and short-term debtors.

Financial assets – interest rate and currency profile for the Duiker Group as at 31 December 2000

	Fixed rate financial assets US$000	Floating rate financial assets US$000	Interest free US$000	Total US$000
South African Rand	–	8,877	28,288	37,165
US dollar	–	–	25,092	25,092
Swiss Francs	–	1,115	–	1,115
	–	**9,992**	**53,380**	**63,372**

The floating rate financial assets are bank accounts which attract interest at commercial rates.

The interest free financial assets consist of investments in unlisted securities and the rehabilitation trust fund and short-term debtors.

Financial assets – interest rate and currency profile for the Duiker Group as at 31 December 2001

	Fixed rate financial assets US$000	Floating rate financial assets US$000	Interest free US$000	Total US$000
South African Rand	–	2,365	13,931	16,296
US dollar	–	8,254	33,986	42,240
Swiss Francs	–	145	–	145
	–	**10,764**	**47,917**	**58,681**

The floating rate financial assets are bank accounts, which attract interest at commercial rates.

The interest free financial assets consist of investments in unlisted securities and the rehabilitation trust fund and short-term debtors.

Borrowing facilities

The undrawn committed facilities available in respect of which all conditions precendent had been met at 31 December 2001 were as follows:

	As at 31 December 1999 US$000	As at 31 December 2000 US$000	As at 31 December 2001 US$000
Expiring in less than one year	–	–	**16,542**
Expiring in less than two years	6,267	2,701	**1,572**
	6,267	2,701	**18,114**

30. Parent Company and Ultimate Controlling Party

The parent company of the Duiker Group is Duiker Coal Investment. The ultimate controlling party is Glencore International AG.

The parent company and ultimate controlling party of Duiker Marketing AG is Glencore International AG.

31. Contingent Liabilities

As at 31 December 2001, the Duiker Group has a US$277,000 (2000: US$302,000) contingent liability in respect of power lines installed at various mines. Should the operation of these mines cease before a given period the Duiker Group will become liable for a percentage of the capital cost incurred by Eskom.

During the year ended 31 December 2001, the Duiker Group has entered into guarantees in respect of properties on operating leases. The contingent liability as at 31 December 2001 amounts to US$277,000.

Yours faithfully

Ernst & Young LLP

Estimated cash flow requirements – based upon gross global offer proceeds of US$1,239.5 million

Set out below for illustrative purposes only, is a summary of the estimated cash flows of the Group from 1 January 2002 to 31 March 2004. These estimates do not constitute a forecast, whether of profits or otherwise, and should be read in conjunction with the assumptions set out below. The estimates and assumptions underlying the projections are inherently uncertain, based upon events that have not taken place, and are subject to significant economic, competitive and other uncertainties and contingencies beyond the control of the Group. See "Investment considerations" in Part IV and "Presentation of information – Forward-looking statements" for a discussion of some of these factors. The estimates and underlying assumptions speak only as of the date hereof, and are subject to change. Consequently there can be no assurances that the projected results or cash flows can be realised or that actual results or cash flows will not be higher or lower than those projected, and this summary should not be relied upon as such.

	Year ending 31 December 2002 US$m	Year ending 31 December 2003 US$m	Three months ending 31 March 2004 US$m
Receipts			
Turnover	2,125.3	2,463.3	708.5
Issue of shares	1,239.5	–	–
Net new borrowings	111.1	–	–
Movements in working capital	8.7	(2.2)	(21.8)
	3,484.6	2,461.1	686.7
Payments			
Cash operating costs	1,425.8	1,654.3	447.8
Financing costs	34.7	33.7	7.9
Repayment of borrowings	–	–	–
Capital expenditure	261.6	234.2	50.7
Cost of acquisition	1,350.6	–	–
Dividends paid	–	68.2	–
Taxation	118.4	124.4	14.0
Net cash flow	**293.5**	**346.3**	**166.3**
Opening net balance	**98.6**	**392.1**	**738.4**
Closing net balance	**392.1**	**738.4**	**904.7**

The illustrative projected cash flows, which have been prepared by the Directors, should be read in conjunction with the assumptions set out below.

Turnover and operating costs

The turnover and operating costs are based on the relevant mineral resources to be extracted, management forecasts of the expected grade structures of the saleable resources, mineral concentrates and products and the expected extraction costs and the following commodity prices:

Commodity		Year ending 31 December 2002	Year ending 31 December 2003	Three months ending 31 March 2004
Coal Australia export FOB	US$ per tonne	29.35 to 34.93	30.54 to 35.70	33.00 to 38.46
Coal Australia domestic	US$ per tonne	12.45 to 19.32	14.72 to 22.78	17.48 to 25.11
Coal South Africa export FOB	US$ per tonne	29.60	31.58	33.05
Coal South Africa domestic	US$ per tonne	8.32	7.25	7.19
Zinc	US$ per tonne	877.00	1,042.00	1,148.00
Ferrochrome FOB	USc per lb	22.00	22.00	23.00
Vanadium Pentoxide CIF	US$ per lb	1.13	1.79	2.58
Ferrovanadium CIF	US$ per kilogramme	7.40	10.10	13.50

Capital expenditure

Capital expenditure has been projected in line with the long-term strategic plans of the Group at the time of listing.

Acquisitions and disposals

For the purpose of the estimated cash flows, it has been assumed that the Group will not make any major acquisitions or disposals, although such acquisitions and disposals may in fact occur.

Inflation

Annual inflation has been estimated by the Directors as 6% in South Africa, 2.5% in Australia, 2.5% in the US and 2.5% in Spain in respect of administrative expenses throughout the period.

Taxation

Cash tax assumed payable as a percentage of profit before tax as follows:

Year ending 31 December 2002 24%.
Year ending 31 December 2003 23%.
Three months ending 31 March 2004 24%.

Interest rates

Interest rates are assumed to be 0% per annum on positive cash balances and 2.90% per annum on corporate borrowings.

Exchange rates

The following rates have been adopted:

For the year ended 31 December 2002	For the year ended 31 December 2003	For the three months ended 31 March 2004
US$1 = ZAR 11.00	US$1 = ZAR 11.76	US$1 = ZAR 12.17
= A$ 1.84	= A$ 1.65	= A$ 1.59
= Euro 1.10	= Euro 1.10	= Euro 1.09

Other significant assumptions

There will be no change in current legislation, taxation or regulations or currently accepted practice (in particular with regard to the requirements associated with environmental matters or concerning the remittance of funds or exchange controls) or adverse political, economic or social changes, which will significantly affect the Group's operations.

There will be no material disruption to the Group's business due to industrial disputes, equipment breakdown, natural disasters or otherwise.

The Global Offer will raise US$1,239.5 million and US$111.1 million will be raised in new corporate debt net of repayments of previously outstanding debt. The expenses relating to the issue of the Ordinary Shares, the Acquisitions, the Merger and the Syndicated Loan Facility are estimated to amount to US$113 million (including VAT).

The Acquisition consideration payable to Glencore will be US$2,088 million satisfied in cash and shares.

Funding requirement

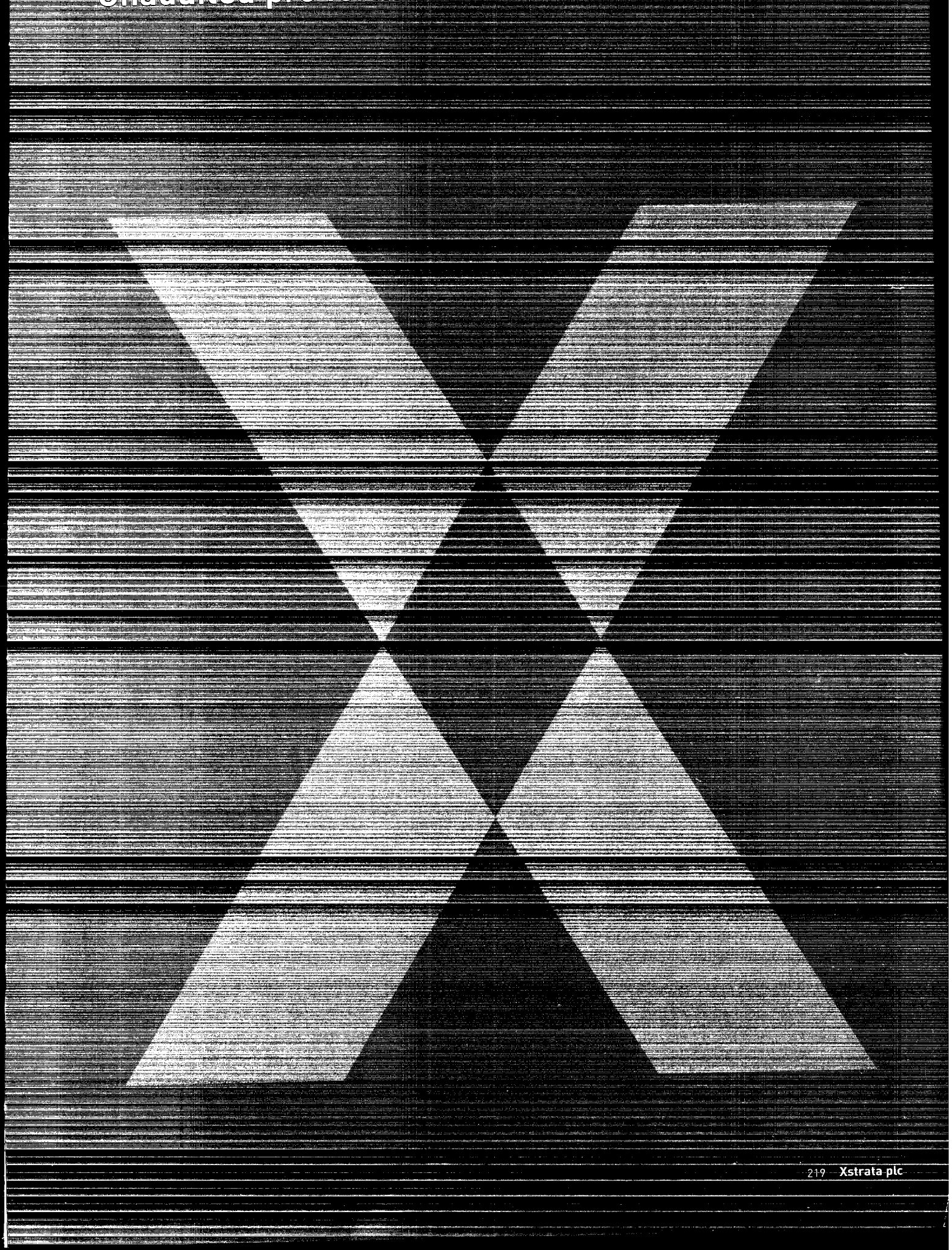
There are no additional funding requirements of the Group for the period until 31 March 2004 over and above funds raised as part of the Global Offer and new corporate debt as described above.

Sensitivity analysis

The table sets out the impact of a 10% movement in commodity prices and exchange rates on the estimated cash flow for the year ended 31 December 2002:

US$ millions	-10%	+10%
Base case	293.5	293.5
Coal	-101.8	+97.9
Zinc	-29.8	+29.8
Chrome	-16.4	+16.3
AUD	+50.9	-62.4
ZAR	+44.1	-53.9

Unaudited pro forma financial information



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Pro Forma combined Net Assets of Xstrata as at 31 December 2001

The following pro forma statement of combined net assets of Xstrata as at 31 December 2001 is prepared for illustrative purposes only and may not, because of its nature, give a true picture of the financial position of the Group. It is prepared to illustrate the effect on the net assets of Xstrata of the Acquisitions, Merger and of the Global Offer, as if the Acquisitions, Merger and Global Offer had taken place on 31 December 2001, and is based on the balance sheets of Xstrata, Xstrata AG, the Enex Group and the Duiker Group as at 31 December 2001 extracted without material adjustment from the Accountants' Reports as set out in Part VI. Adjustments have been made in accordance with paragraph 12.29 of the Listing Rules.

	At 31 December 2001					Adjustments			
	Xstrata Note 1 US$000	Xstrata AG Note 1 US$000	Enex Group Note 1 US$000	Duiker Group Note 1 US$000	Xstrata Sub-total US$000	Acquisition adjustments Note 2 US$000	Global Offer adjustments Note 3 US$000	Other adjustments Note 4 US$000	Pro forma Xstrata plc net assets US$000
Fixed Assets									
Goodwill	–	125,160	–	–	125,160	–	–	–	125,160
Tangible assets	–	771,680	640,946	205,351	1,617,977	1,841,830	–	–	3,459,807
Other	–	13,082	–	–	13,082	–	–	–	13,082
Investments	–	22,941	19,970	39,135	82,046	–	–	–	82,046
	–	932,863	660,916	244,486	1,838,265	1,841,830		–	3,680,095
Current Assets									
Stocks	–	144,768	56,777	24,646	226,191	–	–	–	226,191
Debtors	–	188,171	89,513	45,093	322,777	–	–	–	322,777
Cash and short term deposits	–	45,866	42,804	11,243	99,913	(1,237,608)	2,235,789	(999,470)	98,624
	–	378,805	189,094	80,982	648,881	(1,237,608)	2,235,789	(999,470)	647,592
Creditors: amounts falling due within one year	–	(221,726),	(100,179)	(68,943)	(390,848)	–	–	106,988	(283,860)
Net Current Assets	**–**	**157,079**	**88,915**	**12,039**	**258,033**	**(1,237,608)**	**2,235,789**	**(892,482)**	**363,732**
Total Assets less Current Liabilities	–	1,089,942	749,831	256,525	2,096,298	604,222	2,235,789	(892,482)	4,043,827
Creditors: amounts falling due after more than one year	–	(421,990)	(521,149)	(21,307)	(964,446)	–	(1,109,300)	892,482	(1,181,264)
Provision for liabilities and charges	–	(126,835)	(80,701)	(57,972)	(265,508)	–	–	–	(265,508)
	–	541,117	147,981	177,246	866,344	604,222	1,126,489	–	2,597,055
Minority Interests	–	(1,994)	(79,147)	–	(81,141)	–	–	–	(81,141)
Net assets	**–**	**539,123**	**68,834**	**177,246**	**785,203**	**604,222**	**1,126,489**	**–**	**2,515,914**

Notes:

1 The consolidated net assets of Xstrata, Xstrata AG, the Enex Group and the Duiker Group at 31 December 2001 and the profit and loss accounts for the year then ended have been extracted without material adjustment from the Accountants' Reports as set out in Part VI.

2 The total value for the Acquisitions of US$2,573.00 million involves a consideration of US$2,087.91 million after taking account of US$20 million paid to the Vendors by Duiker since 1 January 2002 and addressed within this note 2 and repayment of net indebtedness and shareholder loans of US$485.09 million addressed within note 4. Allocations related to the Acquisitions include:

(a) payment of consideration of US$2,067.91 million payable in cash of US$1,217.608 million, and an amount in shares of US$850.302 million and US$20 million paid to the Vendors by the Duiker Group since 1 January 2002, split as to US$995.452 million for the Enex Group and US$1,092.458 million for the Duiker Group.

(b) a fair value adjustment calculated as follows:

	US$000	US$000
Consideration for the acquisition of Enex Group	995,452	
Net assets of Enex Group per Accountants' report in Part VI	(68,834)	926,618
Consideration for the acquisition of Duiker Group	1,092,458	
Net assets of Duiker Group per Accountants' report in Part VI	(177,246)	915,212
Fair value adjustment to tangible fixed assets		1,841,830

Fair value allocation

A full assessment of fair values of assets and liabilities will be undertaken prior to the end of the first accounting period of Xstrata.

3 The adjustments related to the Global Offer and debt issue reflect:

i) the gross proceeds of the Global Offer of US$1,239.489 million.

ii) the issue of new long-term loans of US$1,109.3 million (as part of the Syndicated Loan Facility of US$1,400 million).

iii) the payment of fees and expenses incurred in connection with the Global Offer, the Acquisitions, the Merger and the Syndicated Loan Facility of approximately US$113 million. These costs relate principally to underwriting and investment banking fees, as well as legal, accounting and regulatory filing fees. The pro forma adjustments represent Xstrata management's best estimate based on available information at this time. Actual amounts will differ from those reflected. This adjustment also includes the estimated associated acquisition costs of the Enex Group and the Duiker Group and of the share issue expenses.

4 The other adjustments reflect the repayment of US$539.13 million gross indebtedness and shareholder loans (which results in net indebtedness of US$485.09 million after deduction of Enex Group cash of US$42.8 million and Duiker Group cash of US$11.24 million as at 31 December 2001) payable by Enex Group and Duiker Group, together with the repayment of US$460.34 million of existing Xstrata debt. The aggregate amount of US$999.47 million is split between US$106.988 million short-term and US$892.482 million long-term.

5 No account has been taken of any trading or other transactions since 31 December 2001 for Xstrata, Xstrata AG, Duiker Group and Enex Group. No account has been taken of any other further fair value adjustments that may be necessary.

Pro Forma combined Profit Statement of Xstrata for the year ended 31 December 2001

The following pro forma combined profit statement of Xstrata for the year ended 31 December 2001 is prepared for illustrative purposes only and may not, because of its nature, give a true picture of the results of the Group. It is prepared to illustrate the effect on the profit for the year of Xstrata of the Acquisitions, Merger and of the Global Offer, as if the Acquisitions, Merger and Global Offer had taken place on the first day of the period ended 31 December 2001, and also to illustrate the effect of the acquisitions of Asturiana and Oakbridge as if these acquisitions had taken place on 1 January 2001. The pro forma information is based on the profit and loss accounts of Xstrata, Xstrata AG, Enex Group and Duiker Group for the year ended 31 December 2001 extracted without material adjustment from the Accountant's Reports set out in Part VI. Xstrata did not trade during the period. Adjustments have been made in accordance with paragraph 12.29 of the Listing Rules.

	Year ended 31 December 2001					Adjustments					
	Xstrata Note 1	Xstrata AG Note 1 US$000	Enex Group Note 1 US$000	Duiker Group Note 1 US$000	Xstrata Sub-total US$000	Acquisition adjustments Xstrata plc Note 6 US$000	Global Offer adjustments Note 7 US$000	Other adjustments Note 8 US$000	Pro forma Xstrata plc US$000	Pro forma combined constructed adjustment Note 9 US$000	Pro forma Xstrata plc combined constructed US$000
Turnover											
Continuing operations	–	346,969	291,199	371,325	1,009,493	–	–	–	1,009,493	–	1,009,493
Acquisitions	–	266,634	371,152	–	637,786	–	–	–	637,786	227,633	865,419
	–	**613,603**	**662,351**	**371,325**	**1,647,279**	**–**	**–**	**–**	**1,647,279**	**227,633**	**1,874,912**
Operating costs	–	(521,157)	(506,717)	(226,921)	(1,254,795)	(46,000)	–	–	(1,300,795)	(206,247)	(1,507,042)
Operating profit											
Continuing operation	–	47,649	61,896	144,404	253,949	(46,000)	–	–	207,949	–	207,949
Acquisitions	–	44,797	93,738	–	138,535	–	–	–	138,535	21,386	159,921
OPERATING PROFIT	–	92,446	155,634	144,404	392,484	(46,000)	–	–	346,484	21,386	367,870
Continuing operations:											
Associate profit	–	–	(466)	56,788	56,322	–	–	–	56,322	466	56,788
Profit/(loss) on sale of operations	–	(1,954)	–	–	(1,954)	–	–	–	(1,954)	–	(1,954)
Impairment and profit/(loss) on disposal of fixed assets	–	(45,034)	1,479	131	(43,424)	–	–	–	(43,424)	–	(43,424)
Exchange difference	–	–	(29,473)	–	(29,473)	–	–	29,473	–	–	–
Net Interest Payable	–	(21,554)	(5,677)	(7,104)	(34,335)	–	(12,211)	–	(46,546)	(14,263)	(60,809)
Profit on ordinary activities before taxation	–	**23,904**	**121,497**	**194,219**	**339,620**	**(46,000)**	**(12,211)**	**29,473**	**310,882**	**7,589**	**318,471**
Tax on profit on ordinary activities	–	(10,635)	(23,561)	(40,133)	(74,329)	–	3,053	–	(71,276)	(4,392)	(75,668)
Profit on ordinary activities after taxation	–	13,269	97,936	154,086	265,291	(46,000)	(9,158)	29,473	239,606	3,197	242,803
Dividends	–	–	–	(66,683)	(66,683)	–	–	66,683	–	–	–
Minority interests: Equity	–	(2,016)	(13,195)	–	(15,211)	–	–	–	(15,211)	(325)	(15,536)
Profit for the financial year attributable to members of the parent company	–	**11,253**	**84,741**	**87,403**	**183,397**	**(46,000)**	**(9,158)**	**96,156**	**224,395**	**2,872**	**227,267**

Notes:

6 Fair value adjustment to tangible fixed assets of US$1,841.8 million arising on the Acquisitions is amortised over the estimated useful lives of the underlying assets resulting in amortisation of US$46 million for the year.

7 Interest on debt raised as part of the transaction has been included. For this purpose, an amount of US$12.211 million has been included based upon an interest rate of 3.5 per cent. on incremental interest bearing debt used for the purposes of the Acquisitions, adjusted for the tax effect of this charge.

8 Elimination of exchange difference of US$29.473 million arising on a US dollar loan in Enex refinanced as part of this transaction and elimination of dividends of US$66.683 million paid by Duiker to its parent company as if Xstrata had been its parent company from 1 January 2001.

9 Results for Asturiana and Oakbridge for the period between 1 January 2001 and the respective dates of acquisition have been extracted from the management accounts of these companies and translated into US$ at average prevailing rates. Adjustments to increase interest charges by US$6.49 million and to reduce taxes by US$1.62 million have been made to reflect borrowings used for the purposes of acquiring Asturiana and Oakbridge. The interest adjustment has been calculated based on borrowings of US$58.9 million for the acquisition of Oakbridge and US$453.6 million for the acquisition of Asturiana being in place for the period since 1 January 2001 to the date of acquisition at rates of 3% and 4% respectively.

10 Where appropriate taxation effects of the above adjustments have been taken into account.

Pro Forma combined Segmental Information for the year ended 31 December 2001

The following pro forma combined segmental information for the enlarged Group for the year ended 31 December 2001 is prepared for illustrative purposes only and may not, because of its nature, give a true picture of the results of the Group. It is prepared to illustrate the effect on the segmental analysis of Xstrata of the Acquisitions, as if the Acquisitions, Merger and Global Offer had taken place on the first day of the year ended 31 December 2001, and also to illustrate the effect of the acquisitions of Asturiana and Oakbridge as if these acquisitions had taken place on 1 January 2001. The pro forma information is based on the financial information of Xstrata, Xstrata AG, Enex Group and Duiker Group for the year ended 31 December 2001 extracted without material adjustment from the Accountant's Reports set out in Part VI. Xstrata did not trade during the period. Adjustments have been made in accordance with paragraph 12.29 of the Listing Rules.

	Xstrata AG Year ended 31 Dec 2001 US$000	Enex Group Year ended 31 Dec 2001 US$000	Duiker Group Year ended 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma Year ended 31 Dec 2001 US$000	Adjustments Note 13 US$000	Pro forma combined constructed Year ended 31 Dec 2001 US$000
Turnover								
Coal	–	662,351	371,325	1,033,676	–	1,033,676	110,950	1,144,626
Zinc	266,634	–	–	266,634	–	266,634	116,683	383,317
Chrome	257,659	–	–	257,659	–	257,659	–	257,659
Vanadium	63,498	–	–	63,498	–	63,498	–	63,498
Magnesium	25	–	–	25	–	25	–	25
Forestry	25,787	–	–	25,787	–	25,787	–	25,787
Total	**613,603**	662,351	371,325	**1,647,279**	**–**	**1,647,279**	**227,633**	**1,874,912**

	Xstrata AG Year ended 31 Dec 2001 US$000	Enex Group Year ended 31 Dec 2001 US$000	Duiker Group Year ended 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma Year ended 31 Dec 2001 US$000	Adjustments Note 13 US$000	Pro forma combined constructed Year ended 31 Dec 2001 US$000
EBITDA								
Coal	–	199,727	216,792	416,519	–	416,519	(505)	416,014
Zinc	65,934	–	–	65,934	–	65,934	35,519	101,453
Chrome	64,262	–	–	64,262	–	64,262	–	64,262
Vanadium	9,234	–	–	9,234	–	9,234	–	9,234
Magnesium	(4,096)	–	–	(4,096)	–	(4,096)	–	(4,096)
Forestry	792	–	–	792	–	792	–	792
Common costs	(10,170)		–	(10,170)	–	(10,170)	–	(10,170)
Total	**125,956**	**199,727**	**216,792**	**542,475**	**–**	**542,475**	**35,014**	**577,489**

	Xstrata AG Year ended 31 Dec 2001 US$000	Enex Group Year ended 31 Dec 2001 US$000	Duiker Group Year ended 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma Year ended 31 Dec 2001 US$000	Adjustments Note 13 US$000	Pro forma combined constructed Year ended 31 Dec 2001 US$000
EBIT								
Coal	–	156,647	201,323	357,970	(46,000)	311,970	(505)	311,465
Zinc	44,798	–	–	44,798	–	44,798	22,357	67,155
Chrome	59,318	–	–	59,318	–	59,318	–	59,318
Vanadium	(42,360)	–	–	(42,360)	–	(42,360)	–	(42,360)
Magnesium	(5,040)	–	–	(5,040)	–	(5,040)	–	(5,040)
Forestry	561	–	–	561	–	561	–	561
Common costs	(11,819)		–	(11,819)		(11,819)	–	(11,819)
Total	**45,458**	156,647	201,323	**403,428**	**(46,000)**	**357,428**	**21,852**	**379,280**

	Xstrata AG Year ended 31 Dec 2001 US$000	Enex Group Year ended 31 Dec 2001 US$000	Duiker Group Year ended 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma Year ended 31 Dec 2001 US$000	Adjustments Note 13 US$000	Pro forma combined constructed Year ended 31 Dec 2001 US$000
Profit before tax								
Coal	–	121,497	194,219	315,716	(46,000)	269,716	(947)	268,769
Zinc	44,798	–	–	44,798	–	44,798	8,536	53,334
Chrome	59,318	–	–	59,318	–	59,318	–	59,318
Vanadium	(42,360)	–	–	(42,360)	–	(42,360)	–	(42,360)
Magnesium	(5,040)	–	–	(5,040)	–	(5,040)	–	(5,040)
Forestry	561	–	–	561	–	561	–	561
Common costs	(33,373)	–	–	(33,373)	17,262	(16,111)	–	(16,111)
Total	**23,904**	**121,497**	**194,219**	**339,620**	**(28,738)**	**310,882**	**7,589**	**318,471**

	Xstrata AG 31 Dec 2001 US$000	Enex Group 31 Dec 2001 US$000	Duiker Group 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma 31 Dec 2001 US$000
Tangible fixed assets						
Coal	–	640,946	205,351	846,297	1,841,830[iii]	2,688,127
Zinc	387,765	–	–	387,765	–	387,765
Chrome	224,267	–	–	224,267	–	224,267
Vanadium	104,601	–	–	104,601	–	104,601
Magnesium	21,757	–	–	21,757	–	21,757
Forestry	32,618	–	–	32,618	–	32,618
Others	672	–	–	672	–	672
Total	**771,680**	640,946	205,351	**1,617,977**	1,841,830	**3,459,807**

	Xstrata AG 31 Dec 2001 US$000	Enex Group 31 Dec 2001 US$000	Duiker Group 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma 31 Dec 2001 US$000
Net current assets						
Coal	–	88,915	12,039	100,954	–	100,954
Zinc	95,471	–	–	95,471	–	95,471
Chrome	98,857	–	–	98,857	–	98,857
Vanadium	24,021	–	–	24,021	–	24,021
Magnesium	(792)	–	–	(792)	–	(792)
Forestry	1,144	–	–	1,144	–	1,144
Unallocated assets	(61,622)	–	–	(61,622)	105,699[iv]	44,077
Total	**157,079**	88,915	12,039	**258,033**	105,699	**363,732**

	Xstrata AG 31 Dec 2001 US$000	Enex Group 31 Dec 2001 US$000	Duiker Group 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma 31 Dec 2001 US$000
Net assets (Note 11)						
Coal	–	68,834	177,246	246,080	1,841,830[iv]	2,087,910
Zinc	548,009	–	–	548,009	–	548,009
Chrome	187,990	–	–	187,990	–	187,990
Vanadium	106,642	–	–	106,642	–	106,642
Magnesium	25,344	–	–	25,344	–	25,344
Forestry	21,782	–	–	21,782	–	21,782
Unallocated assets	(350,644)	–	–	(350,644)	(111,119)[v]	(461,763)
Total	**539,123**	68,834	177,246	**785,203**	1,730,711	**2,515,914**

	Xstrata AG 31 Dec 2001 US$000	Enex Group 31 Dec 2001 US$000	Duiker Group 31 Dec 2001 US$000	Total US$000	Adjustments Note 12 US$000	Pro forma 31 Dec 2001 US$000
Net assets (Note 11)						
Americas	47,126	–	–	47,126	–	47,126
Africa	265,471	–	177,246	442,717	915,212[vi]	1,357,929
Europe	548,009	–	–	548,009	–	548,009
Australia	29,161	68,834	–	97,995	926,618[vi]	1,024,613
Unallocated assets	(350,644)	–	–	(350,644)	(111,119)[v]	(461,763)
Total	**539,123**	68,834	177,246	**785,203**	1,730,711	**2,515,914**

Notes

11 Adjustments to net assets reflect the division's share of the adjustment made in respect of the Group's net assets set out in notes 2 and 3 in this Part VII.

12 Adjustments to segmental information include:

(i) Amortisation of US$46 million per annum as described in note 6 in this Part VII.

(ii) US$17.262 million comprises US$12.211 million incremental interest and elimination of foreign exchange adjustment of US$29.473 million in Enex, as described in notes 7 and 8 respectively in this Part VII.

(iii) US$1,841.8 million fair value adjustment on the Acquisition, as described in note 2 in this Part VII.

(iv) US$105.699 million adjustments in respect of the net impact of the cash consideration for the Acquisitions of US$1,237.608 million, the net proceeds of the Global Offer of US$1,126.489 million and debt raised of US$1,109.3 million and the repayment of existing long-term debt of US$892.482 million, as described in notes 2, 3 and 4 of this Part VII.

(v) US$111.119 million adjustment in respect of net new debt following the gross proceeds of the Global Offer of US$1,239.489 million, the payment of expenses of US$113 million relating to the Global Offer, the Acquisitions, the Merger and the Syndicated Loan Facility, and the cash payment for the Acquisitions of US$1,237.608 million as described in notes 2 and 3 of this Part VII.

(vi) US$915.212 million and US$926.618 million are the allocation of the fair value adjustment in note 2 of this Part VII.

13 Adjustments relating to the period from 1 January 2001 until the date of acquisition of 3 May 2001 for Asturiana and 31 March 2001 for Oakbridge, as extracted from the financial information as contained within Part VI prepared in respect of these periods. An additional adjustment has been included to reflect the increased amortisation of goodwill of US$2.59 million that would have been recognised had these acquisitions occurred on 1 January 2001.

ERNST & YOUNG

The Directors
Xstrata plc
Becket House
1 Lambeth Palace Road
London SE1 7EU

J.P. Morgan plc
125 London Wall
London EC2Y 5AJ

Ernst & Young LLP
Becket House
1 Lambeth Palace Road
London SE1 7EU

20 March 2002

Dear Sirs

We report on the pro forma financial information set out in Part VII of the listing particulars, which has been prepared, for illustrative purposes only, to provide information about how the Acquisitions, the Merger and the Global Offer might have affected the financial information presented.

Responsibility

It is the responsibility solely of the directors of Xstrata plc ("Xstrata") to prepare the pro forma financial information in accordance with paragraph 12.29 of the Listing Rules.

It is our responsibility to form an opinion, as required by the Listing Rules of the UK Listing Authority, on the pro forma financial information and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards and the Bulletin 1998/8 "Reporting on pro forma financial information pursuant to the Listing Rules" issued by the Auditing Practices Board. Our work, which involved no independent examination of any of the underlying financial information, consisted primarily of comparing the unadjusted financial information with the source documents, considering the evidence supporting the adjustments and discussing the pro forma financial information with the directors of the Group.

Our work has not been carried out in accordance with auditing standards generally accepted in the United States of America and accordingly should not be relied upon as if it had been carried out in accordance with those standards.

Opinion

In our opinion:

(a) the pro forma financial information has been properly compiled on the basis stated;

(b) such basis is consistent with the accounting policies of Xstrata; and

(c) the adjustments are appropriate for the purposes of the pro forma financial information as disclosed pursuant to paragraph 12.29 of the Listing Rules of the UK Listing Authority.

Yours faithfully

Ernst & Young LLP

Ernst & Young LLP

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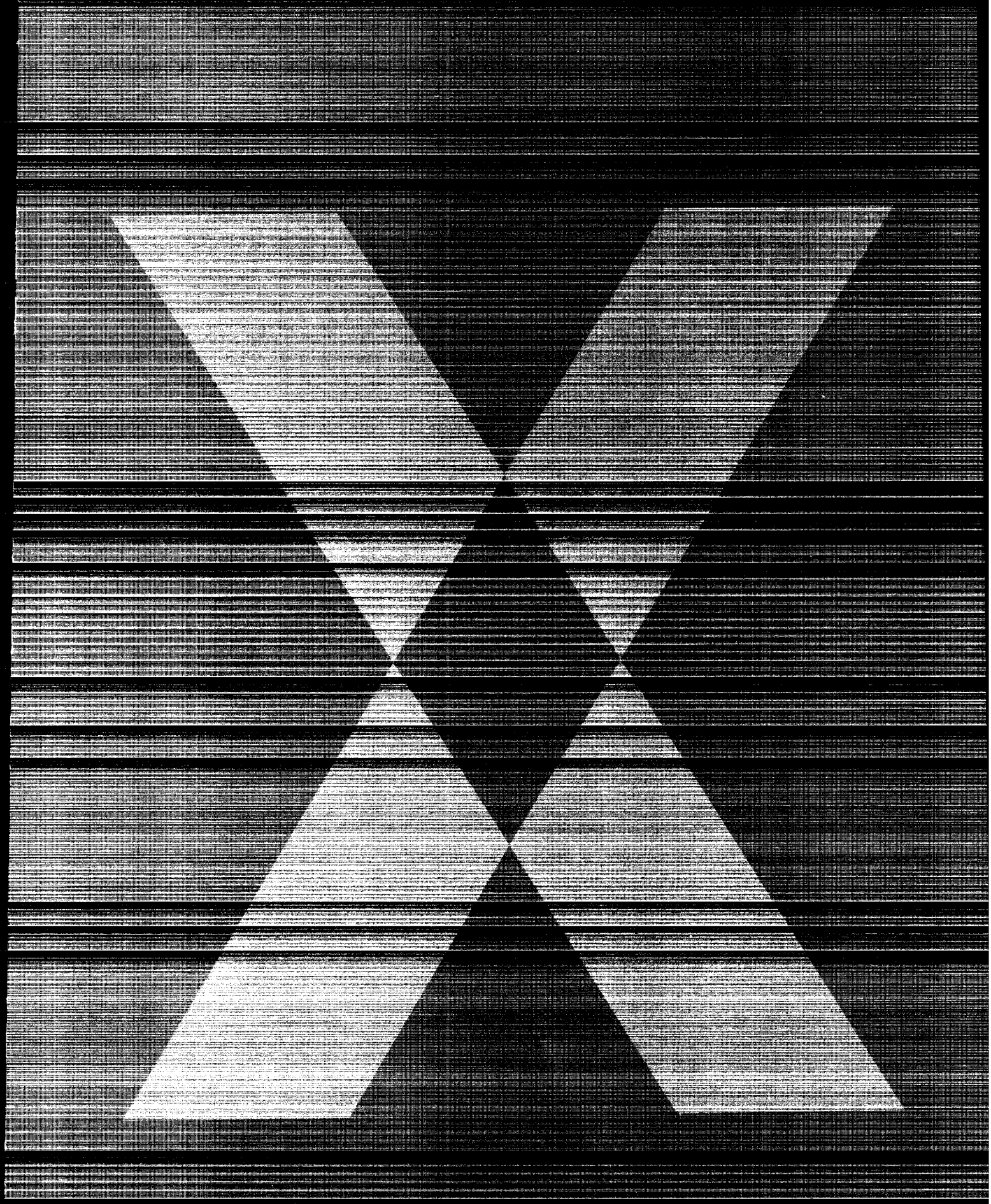
Additional information



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1. Incorporation and activity

1.1 Xstrata plc was incorporated and registered in England and Wales under the name Glassdesk Limited on 31 December 2001 with registered number 4345939 under the Companies Act as a private company limited by shares. By a written resolution passed on 9 February 2002, the Company resolved to change its name to Xstrata Limited. The change of name became effective on 18 February 2002. On 20 February 2002, the Company re-registered as a public limited company under the Companies Act. The principal legislation under which the Company operates is the Companies Act and the regulations made thereunder.

1.2 The Company's registered office is at Becket House, 1 Lambeth Palace Road, London SE1 7EU.

1.3 The Company's head office is at Bahnhofstrasse 2, 6301 Zug, Switzerland.

1.4 The Company has not traded since incorporation.

1.5 By a resolution of the directors dated 9 February 2002, Ernst & Young LLP, whose address is Becket House, 1 Lambeth Palace Road, London SE1 7EU, were appointed as the first auditors of the Company.

1.6 The Company is to be the holding company of the Group with effect from the Merger becoming effective.

1.7 The ISIN Code for the Ordinary Shares is GB0031411001.

1.8 The Swiss securities number of the Company's shares is 1386215.

2. Share capital

2.1 The Company's authorised share capital on incorporation was £1,000 divided into 1,000 ordinary shares of £1 each, one of which was issued to the subscriber to the memorandum of association.

2.2 On 9 February 2002, the Company issued one ordinary share of £1 to Brian Azzopardi and the subscriber share was transferred to Benny Levene.

2.3 The authorised share capital of the Company was increased to £50,000 by a written resolution of all the members on 19 February 2002 and 24,999 ordinary shares were allotted and issued to each of Benny Levene and Brian Azzopardi, each of the ordinary shares being paid up as to a quarter of the nominal value.

2.4 By a written resolution of all the members of the Company on 19 March 2002, it was resolved to adopt the new Articles referred to in paragraph 3.2 and 3.3 below conditional upon and with effect from Admission.

2.5 At an extraordinary general meeting of the Company on 19 March 2002, it was resolved:

(a) that the 50,000 ordinary shares of £1 each in the Company currently in issue be redesignated as 50,000 deferred shares of £1 each in the Company with the rights and restrictions relating to such deferred shares set out in the Articles;

(b) to increase the authorised share capital of the Company to US$175,000,000.50 and £50,000 by the creation of 350,000,000 Ordinary Shares of US$0.50 each and one special voting share of US$0.50;

(c) generally and unconditionally to authorise the Directors pursuant to section 80 of the Companies Act to exercise all the powers of the Company to allot relevant securities (as defined in that section) up to an aggregate nominal amount of US$166,140,650, such authority to expire on 19 March 2007 (save that the Company may, at any time prior to the expiry of such authority, make an offer or agreement which would or might require relevant securities to be allotted after the expiry of such authority and the Directors may allot relevant securities in pursuance of such an offer or agreement as if such authority had not expired); and

(d) to empower the Directors pursuant to the section 80 authority described in paragraph 2.5(c) above to allot Ordinary Shares of the Company for cash for a period until the conclusion of the next annual general meeting of the Company after Admission as if section 89 of the Companies Act did not apply to such allotment but limiting such power to (i) the Ordinary Shares to be issued pursuant to the Acquisition Agreement and the Merger Agreement, (ii) the Ordinary Shares to be issued pursuant to the Global Offer and the Manager's Option, (iii) the allotment of equity securities in connection with a rights issue, and (iv) the allotment (otherwise than pursuant to (i), (ii) and (iii), of equity securities up to an aggregate nominal amount of US$6,315,025 (being 5% of the issued ordinary share capital of the Company following the Acquisitions, the Merger and the Global Offer).

2.6 The provision of section 89(1) of the Companies Act (which confers on the holders of shares rights of pre-emption in respect of the allotment of equity securities which are, or are to be, paid up wholly in cash) will apply to the balance of the authorised but unissued ordinary share capital of the Company which is not the subject of disapplication of section 89 of the Companies Act referred to above.

2.7 The Company's authorised share capital as at 19 March 2002, the latest practicable date prior to the publication of this document, was US$175,000,000.50 and £50,000, comprising 350,000,000 Ordinary Shares, 50,000 deferred shares of £1 each and one special voting share of US$0.50. As at 19 March 2002 the Company had 50,000 deferred shares of £1 each in issue, paid up as to a quarter of the nominal value. Immediately following Admission, assuming the Merger becomes effective and assuming that the Manager's Option is not exercised, it is expected that, as well as the 50,000 deferred shares, the Company's issued share capital will be approximately 227,601,000 Ordinary Shares and one special voting share each credited as fully paid. This is based on the assumption that the number of Xstrata AG Shares in issue immediately prior to Completion is not expected to exceed 5,900,000 shares, being the Xstrata AG Shares in issue on 18 March 2002 (the latest practicable date prior to the publication of this document).

2.8 No temporary documents of title have been or will be issued.

2.9 All existing Ordinary Shares are in registered form and, subject to the provisions of the CREST Regulations, the Directors may permit the holding of shares in any class of shares in uncertificated form and title to such shares may be transferred by means of a relevant system (as defined in the CREST Regulations). Where Ordinary Shares are held in certificated form, share certificates will be sent to the registered members by first class post.

2.10 Save as disclosed in this paragraph 2 and in paragraph 5.4 and paragraph 7 below, no share or loan capital of the Company or any of its subsidiary undertakings is under option or is agreed conditionally or unconditionally to be put under option.

3. Summary of the memorandum and articles of association

Memorandum of association

3.1 Clause 4 of the Company's memorandum of association provides that the Company's objects are, among other things, to carry on the business of a holding company and to carry on any trade or business which can, in the opinion of the Board, be advantageously carried on in connection with or ancillary to any of the Company's businesses and to do all such other things as may be deemed incidental or conducive to the attainment of the Company's objects or any of them. The Company's objects are set out in full in clause four of the Company's memorandum of association, which is available for inspection at the address specified in paragraph 24 below.

Articles of association

3.2 The Articles have been drafted so that certain rights that are inalienable under Swiss law and that holders of Xstrata AG Shares currently enjoy are preserved in the Company subject to the following arrangements. Under English law the Articles can always be amended by a special resolution (requiring a 75% majority of those present and voting, in person or by proxy). Consequently, a special voting share has been created which carries weighted voting rights sufficient to defeat any resolution which would amend certain of the Articles ("Entrenched Rights Actions"). The holder of the special voting share, The Law Debenture Trust Corporation p.l.c. (the "trustee company"), will separately agree, under a voting agreement with the Company (the "Voting Agreement"), to exercise its votes to vote against (and so defeat) any resolution to amend or remove an Entrenched Right Action except in limited circumstances as described in paragraph 3.4 below. This structure will have the effect of entrenching certain rights into the Articles. Those rights will include the following:

- the right not to have changes made to the Articles which would cause a member to cease to be a member or take away a member's rights to speak and vote at general meetings, to be paid a dividend if one is declared and to receive liquidation proceeds on a winding up;
- the right of shareholders to requisition a general meeting (if they hold Ordinary Shares whose nominal value is equivalent to CHF1 million or more);
- the right to at least 20 clear days' notice of all shareholder meetings;
- the right to have satellite general meetings in Switzerland;
- the right of members to appoint directors and alternate directors;
- the right not to have membership withdrawn by consolidation of share capital;
- a provision in a proxy appointment includes the right to demand a poll and confers the right to speak at a meeting;
- the right to inspect records;
- the right to a special examination of the transactions and other matters affecting shareholder rights; and
- a provision requiring the publication of notices relating to the Company in the Swiss Commercial Gazette and at least one leading Swiss newspaper.

3.3 The Articles include provisions to the following effect:

(a) Share rights

(i) Subject to the provisions of the Companies Acts (as defined in the Articles) and without prejudice to any rights attached to any existing shares or class of shares, any share may be issued with such rights or restrictions as the Company may by ordinary resolution determine or, subject to and in default of such determination, as the Board shall determine.

(ii) Subject to the Articles and to the Companies Acts (as defined in the Articles), and without prejudice to any rights attaching to any existing shares or class of shares, the Board may issue any shares which are to be redeemed, or which at the option of the Company or the holder are liable to be redeemed. The unissued shares of the Company (whether forming part of the original or any increased capital) are at the disposal of the Board.

(b) Voting rights

(i) Subject to the rights and restrictions attached to any class of shares:

(a) on a show of hands, every member present in person or by proxy has one vote (save that neither the holder of the special voting share nor any holder of deferred share(s) shall be entitled to vote) and a proxy appointed by a member on behalf of such member's shareholding shall also have one vote;

(b) on a poll:

(A) every member present in person or by proxy (except the holder of the special voting share and any holder of the deferred shares) shall have:

(i) one vote for each fully paid share; and

(ii) for each partly-paid share, such proportion of the votes attached to a fully paid share as would mean that such proportion is the same as the proportion of the amount paid up on the total issue price of that share;

(B) the holder of the special voting share shall, on an Entrenched Rights Action, have enough votes to defeat the resolution but, on all other decisions, shall have no votes; and

(C) the holders of the deferred shares shall not be entitled to vote.

(ii) Unless the Board determines otherwise, a member who has been served with a direction notice after failure (whether by such member or by another person) to provide the Company with information concerning interests in those shares required to be provided under the Companies Act, shall (for so long as the information is not supplied and for up to 14 days thereafter) not be entitled to vote in respect of the shares in relation to which the information has not been supplied.

(c) Dividends and other distributions

(i) Subject to the provisions of the Companies Acts (as defined in the Articles), the Company may by ordinary resolution declare dividends in accordance with the respective rights of the members, but no dividend shall exceed the amount recommended by the Board. The dividend shall be paid according to the amounts paid on shares in respect of which the dividend is paid, but no amount paid on a share in advance of calls shall be treated for these purposes as paid on the share. The special voting share and the deferred shares shall not carry the right to receive a dividend.

(ii) Subject to the provisions of the Companies Acts (as defined in the Articles), the Board may pay interim dividends if it appears to the Board that they are justified by the profits of the Company available for distribution.

(iii) The Board may also pay at intervals determined by it any dividend at a fixed rate if it appears to the Board that the profits available for distribution justify the payment. If the Board acts in good faith it shall not incur any liability to the holders of shares conferring preferred rights for any loss they may suffer by the lawful payment of an interim dividend on any shares having deferred or non-preferred rights.

(iv) No dividend or other moneys payable in respect of a share shall bear interest against the Company unless otherwise provided by the rights attached to the share.

(v) The Board may withhold payment from a person of any dividend in respect of shares in the Company if those shares represent at least a 0.25% interest in the Company's shares or any class thereof and if, in respect of those shares, such person has been served with a direction notice after failure (whether by such person or by another) to provide the Company with information concerning interests in those shares required to be provided under the Companies Act.

(vi) Except as otherwise provided by the rights attached to any class of shares, all dividends will be declared and paid according to the amounts paid-up on the shares during any portion of the period in respect of which the dividend is paid.

(vii) The Board may, if authorised by an ordinary resolution of the Company, offer any holder of shares the right to elect to receive shares by way of scrip dividend instead of cash in respect of the whole (or some part, to be determined by the Board) of any dividend.

(viii) Any dividend which has remained unclaimed for 12 years from the date when it became due for payment shall, if the Board so resolves, be forfeited and cease to remain owing by the Company.

(ix) Except as provided by the rights and restrictions attached to any class of shares (as to which see paragraph 3.2(e) below), the holders of the Company's shares will under general law be entitled to participate in any surplus assets in a winding up in proportion to their shareholdings. A liquidator may, with the sanction of an extraordinary resolution and any other sanction required by the Insolvency Act 1986, divide among the members in specie the whole or any part of the assets of the Company and may, for that purpose, value any assets and determine how the division shall be carried out as between the members or different classes of members.

(d) Variation of rights

Except as set out in paragraphs 3.2 and 3.4 in the case of an Entrenched Rights Action and subject to the provisions of the Companies Acts (as defined in the Articles), rights attached to any class of shares may be varied or abrogated in such manner (if any) as may be provided by those rights, or in the absence of any provision, either with the written consent of the holders of not less than three-fourths in nominal value of the issued shares of that class, or the sanction of an extraordinary resolution passed at a separate general meeting of the holders of those shares.

(e) Rights of holders of deferred shares

The holders of deferred shares shall not have the right to receive notice of any general meeting of the Company nor the right to attend, speak or vote at any such general meeting. The deferred shares have no rights to dividends and, on a winding-up or other

return of capital entitle the holder only to the repayment of the amounts paid upon such shares after repayment of the nominal amount paid up on the Ordinary Shares, the nominal amount paid up on the special voting share plus the payment of £100,000 per Ordinary Share. The Company has irrevocable authority at any time to appoint any person to execute on behalf of the holders of any deferred shares a transfer of and/or an agreement to transfer the deferred shares to such persons as the Company may determine as custodian of the shares and/or purchase or cancel the deferred shares (in accordance with the provisions of the Companies Act) in any such case for not more than £1 for each share being transferred, purchased or cancelled to be paid to the registered relevant holder of the shares without obtaining the sanction of the holder or holders of the deferred shares for such a transfer and/or acquisition and, pending such transfer and/or acquisition, to retain the certificate for such deferred shares. The Company may, at its option, redeem all of the deferred shares in issue at any time (but subject to the minimum capital requirement of the Companies Act) at a price not exceeding £1 for each share redeemed to be paid to the relevant registered holders of the shares. The Company must provide the holders of the deferred shares with not less than 28 days' notice in writing of its intention to do so, fixing a time and place for the redemption.

(f) Lien and forfeiture

(i) The Company will have a first and paramount lien on every share (not being a fully paid share) for all moneys payable by the Company (whether presently payable or not) called or payable in respect of that share. The Company may sell any share on which the Company has a lien if a sum in respect of which the lien exists is presently payable and is not paid within 14 clear days after notice has been sent to the holder of the share demanding payment and stating that if the notice is not complied with the share may be sold.

(ii) The Company may from time to time make calls upon the members in respect of any moneys unpaid on their shares. Each member shall, subject to receiving at least 14 clear days' notice, pay to the Company the amount called on his shares. In the event of non-payment, the Board may give to the person from whom it is due not less than 14 clear days' notice requiring payment of the amount unpaid together with any interest which may have accrued and any costs, charges and expenses incurred by the Company by reason of such non-payment. The notice shall name the place where payment is to be made and shall state that if the notice is not complied with the shares in respect of which the call was made will be liable to be forfeited.

(g) Transfer of shares

(i) A member may transfer all or any of his certificated shares by an instrument of transfer in any usual form or in any other form, which the Board may approve. An instrument of transfer shall be signed by or on behalf of the transferor and, unless the share is fully paid, by or on behalf of the transferee. An instrument of transfer need not be under seal.

(ii) The Board may, in its absolute discretion and without giving any reason, refuse to register the transfer of a certificated share which is not a fully paid share, provided that the refusal does not prevent dealings in shares of that class in the Company from taking place on an open and proper basis. The Board may also refuse to register the transfer of a certificated share unless the instrument of transfer:

(A) is lodged, duly stamped (if stampable), with the Company and (except where the shares are registered in the name of a recognised person (as defined in the Articles) and no certificate shall have been issued therefor) is accompanied by the relevant share certificate and such other evidence of the right to transfer as the Board may require;

(B) is in respect of one class of share only; and

(C) is in favour of not more than four persons.

(iii) The Board may refuse to register a transfer of shares in the Company by a person if those shares represent at least a 0.25% interest in the Company's shares or any class thereof and if, in respect of those shares, such person has been served with a direction notice after failure (whether by such person or by another) to provide the Company with information concerning interests in those shares required to be provided under the Companies Act, unless (i) the transfer is an approved transfer (as defined in the Articles), (ii) the relevant member is not himself in default as regards supplying the information required and certifies that no person in default as regards supplying such information is interested in any of the shares the subject of the transfer, or (iii) the transfer of the shares is required to be registered by the CREST Regulations.

(iv) Notice of refusal to register a transfer must be sent to the transferee within two months after the date on which the instrument of transfer was lodged with the Company or the instruction to transfer shares was received by the Company from the Operator of a Relevant System (in each case, as defined in the CREST Regulations), as the case may be.

(v) No fee shall be charged for the registration of any instrument of transfer or other document relating to or affecting the title to any share.

(vi) Shares may be transferred by means of a Relevant System, including the Relevant System of which CRESTCo Limited is the Operator (in each case, as defined in the CREST Regulations).

(vii) The Board shall decline to register any transfer of the special voting share except where permitted in accordance with the Voting Agreement in place between the Company and the holder of the special voting share. The Voting Agreement is described in paragraph 3.4 below.

(viii) Save as provided above or as required by the Companies Act or other applicable law, the Company shall not impose restrictions on the transfer of shares.

(h) Alteration of share capital

The Company may from time to time by ordinary resolution increase, consolidate and divide or, subject to the Companies Acts (as defined in the Articles), subdivide its share capital. The Company may by ordinary resolution also cancel any shares which have not, at the date of the resolution, been taken or agreed to be taken by any person and diminish the amount of its authorised share capital by the amount of the shares so cancelled. Subject to the provisions of the Companies Acts (as defined in the Articles), the Company may by special resolution reduce its share capital, capital redemption reserve and share premium account in any way.

(i) Purchase of own shares

Subject to the Companies Acts (as defined in the Articles) and to any relevant special rights attached to any class of shares, the Company may purchase any of its own shares of any class in any way and at any price (whether at par or above or below par).

(j) General meetings

The Board shall convene and the Company shall hold general meetings as annual general meetings in accordance with the requirements of the Companies Acts (as defined in the Articles). The Board may call general meetings whenever and at such times and places as it shall determine.

(k) Special Voting Share

The special voting share does not carry a right to receive dividends, has rights to vote in certain circumstances and carries a right to no more than the amount of capital paid up on such a share in the event of liquidation. As noted below, the special voting share carries enough votes to defeat any resolution deemed to be an Entrenched Rights Action. The special voting share will be redeemable by the Company on termination of the Voting Agreement.

(l) Entrenched Rights Action

If the Company proposes to take an Entrenched Rights Action, such action shall require approval by a special resolution passed at a general meeting. The holders of the Ordinary Share and the holder of the special voting share are entitled to vote as a single class on a poll. On such a resolution, the holder of the special voting share shall have sufficient votes to defeat the resolution. Entrenched Rights Actions are described in paragraph 3.2 above.

(m) Directors

(i) Appointment of Directors

Unless otherwise determined by ordinary resolution, the number of Directors shall be not less than two and shall not be subject to any maximum. Directors may be appointed by the Company by ordinary resolution of Shareholders. The Board may not appoint a Director (either to fill a vacancy or as an additional Director).

(ii) Age of Directors

The provisions of the Companies Act with regard to "Age limit for Directors" shall not apply to the Company but where the Board convenes any general meeting of the Company at which (to the knowledge of the Board) a Director will be proposed for appointment or re-appointment who at the date for which the meeting is convened will have attained the age of 70 or more, the Board shall give notice of his age in years in the notice convening the meeting.

(iii) No share qualification

A director shall not be required to hold any shares in the capital of the Company by way of qualification.

(iv) Retirement of Directors by rotation

At the first general meeting after the date of adoption of these Articles all the Directors shall retire from office and at every subsequent annual general meeting of the Company, as near as possible to one-third of the Directors, but at least one, will retire by rotation. The Directors to retire will be those who have been longest in office and those who have at the start of the annual general meeting been in office for more than three years since their last appointment or re-appointment or in the case of those who were appointed or re-appointed on the same day, will be (unless they otherwise agree) determined by lot. A retiring Director shall be eligible for re-election.

(v) Remuneration of Directors

(A) The emoluments of any Director holding executive office for his services as such shall be determined by the Board, and may be of any description.

(B) The total ordinary remuneration of the Directors who do not hold executive office for their services (excluding amounts payable under any other provision of the Articles) shall not exceed in aggregate £1,000,000 per annum or such higher amount as the Company may from time to time by ordinary resolution determine. Subject thereto, each such Director shall be paid a fee (which shall be deemed to accrue from day to day) at such rate as may from time to time be determined by the Board. In addition, any Director who does not hold executive office and who serves on any committee of the Board, goes or resides abroad for any purpose of the Company or performs services outside the scope of the ordinary duties of a Director may be paid such extra remuneration as the Board may determine.

(C) In addition to any remuneration to which the Directors are entitled under the Articles, they may be paid all travelling, hotel and other expenses properly incurred by them in connection with their attendance at meetings of the Board or committees of the Board, general meetings or separate meetings of the holders of any class of shares or of debentures of the Company or otherwise in connection with the discharge of their duties.

(D) The Board may provide benefits, whether by the payment of gratuities or pensions or by insurance or otherwise, for any past or present Director or employee of the Company or any of its subsidiary undertakings or any body corporate associated with, or any business acquired by, any of them, and for any member of his family or any person who is or was dependent on him.

(vi) Permitted interests of Directors

Subject to the provisions of the Companies Acts (as defined in the Articles), and provided that he has disclosed to the Board the nature and extent of any material interest of his, a Director notwithstanding his office:

(A) may be a party to, or otherwise interested in, any transaction or arrangement with the Company or in which the Company is otherwise interested;

(B) may act by himself or his firm in a professional capacity for the Company (otherwise than as auditor), and he or his firm shall be entitled to remuneration for professional services as if he were not a Director;

(C) may be a director or other officer of, or employed by, or a party to any transaction or arrangement with, or otherwise interested in, any body corporate promoted by the Company or in which the Company is otherwise interested; and

(D) shall not, by reason of his office, be accountable to the Company for any benefit which he derives from any such office or employment or from any such transaction or arrangement or from any interest in any such body corporate and no such transaction or arrangement shall be liable to be avoided on the ground of any such interest or benefit.

(vii) Restrictions on voting

A Director shall not vote in respect of any matter in which he has an interest (other than by virtue of his interests in shares or debentures or other securities of, or otherwise in or through, the Company) which (together with any interest of any person connected with him) is to his knowledge material, unless his interest arises only because the resolution concerns one or more of the following matters:

(A) the giving of a guarantee, security or indemnity in respect of money lent or obligations incurred by him or any other person at the request of, or for the benefit of, the Company or any of its subsidiary undertakings;

(B) the giving of a guarantee, security or indemnity in respect of a debt or obligation of the Company or any of its subsidiary undertakings for which the Director has assumed responsibility (in whole or part and whether alone or jointly with others) under a guarantee or indemnity or by the giving of security;

(C) a contract, arrangement, transaction or proposal concerning an offer of shares, debentures or other securities of the Company or any of its subsidiary undertakings for subscription or purchase, in which offer he is or may be entitled to participate as a holder of securities or in the underwriting or sub-underwriting of which he is to participate;

(D) a contract, arrangement, transaction or proposal concerning any other body corporate in which he or any person connected with him is interested, directly or indirectly, and whether as an officer, shareholder, creditor or otherwise, if he and any persons connected with him do not to his knowledge hold an interest (as that term is used in sections 198 to 211 of the Companies Act) representing 1% or more of either any class of the equity share capital of such body corporate (or any other body corporate through which his interest is derived) or of the voting rights available to members of the relevant body corporate (any such interest being deemed for the purpose of this Article to be a material interest in all circumstances);

(E) a contract, arrangement, transaction or proposal for the benefit of employees of the Company or of any of its subsidiary undertakings which does not award him any privilege or benefit not generally accorded to the employees to whom the arrangement relates; and

(F) a contract, arrangement, transaction or proposal concerning any insurance which the Company is empowered to purchase or maintain for, or for the benefit of, any Directors or for persons who include Directors.

(viii) Borrowing powers

The Board may exercise all the powers of the Company to borrow money, to guarantee, to indemnify, to mortgage or charge its undertaking, property, assets (present and future) and uncalled capital, and to issue debentures and other securities whether outright or as collateral security for any debt, liability or obligation of the Company or of any third party. There is no requirement on the Directors to restrict the borrowings of the Company or its subsidiaries.

(ix) Indemnity of officers

Subject to the provisions of the Companies Acts (as defined in the Articles) but without prejudice to any indemnity to which a Director may otherwise be entitled, every Director or other officer of the Company shall be indemnified out of the assets

of the Company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour (or the proceedings are otherwise disposed of without any finding or admission of any material breach of duty on his part) or in which he is acquitted or in connection with any application in which relief is granted to him by the court from liability for negligence, default, breach of duty or breach of trust in relation to the affairs of the Company.

(n) Share Control Limits

Whilst the City Code does not apply to the Company, a person must not:

(a) whether by himself, or with persons determined by the Board to be acting in concert with him, acquire shares which, taken together with shares held or acquired by persons determined by the Board to be acting in concert with him, carry 30% or more of the voting rights attributable to Ordinary Shares; or

(b) whilst he, together with persons determined by the Board to be acting in concert with him, holds not less than 30% but not more than 50% of the voting rights attributable to Ordinary Shares, acquire, whether by himself or with persons determined by the Board to be acting in concert with him, additional shares which, taken together with shares held by persons determined by the Board to be acting in concert with him, increases his voting rights attributable to Ordinary Shares,

(each a "Limit") unless (i) the Board consents to the acquisition, or (ii) the acquisition is made in circumstances in which the City Code, if it applied to the Company, would require an offer to be made as a consequence and such offer is made in accordance with Rule 9 of the City Code as if it so applied or (iii) if the acquisition arises from repayment of a stock borrowing arrangement (on arm's length commercial terms) (a "Permitted Acquisition").

Where a person breaches any Limit, except as a Permitted Acquisition, that person is in breach of the Articles and the Board may, amongst other things:

(a) determine that certain voting rights attached to shares held by such persons as the Board may determine to be held in breach of the Articles ("Excess Shares") are from a particular time incapable of being exercised for a definite or indefinite period;

(b) determine that some or all of the Excess Shares must be sold; and

(c) determine that some or all of the Excess Shares will not carry any right to dividends or other distributions from a particular time for a definite or indefinite period.

The Board has full authority to determine the application of such share control limits including as to the deemed application of Rule 9 of the City Code, such authority shall include all discretion vested in the Panel on Takeovers and Mergers as if Rule 9 of the City Code applied.

3.4 The Voting Agreement provides that the trustee company will vote against any Entrenched Rights Actions unless:

(a) in the opinion of counsel, such resolutions can be passed without derogating in any material respect from the rights which the former Xstrata AG shareholders would enjoy if the shares in the Company were shares in a company incorporated in Switzerland; or

(b) in the opinion of counsel, such resolutions would be permitted in relation to a merger between a Swiss corporation (Aktiengesellschaft) and an English plc under Swiss law and practice then in force and applicable, were the merger to take place at the time of the proposed resolutions; or

(c) the Company has certified to the trustee company that after having invited all shareholders to object, no shareholder has objected to the adoption of the resolution or has voted against it.

The Voting Agreement is terminable and may be amended under certain limited circumstances including in circumstances broadly comparable to those mentioned in paragraphs 3.4(a) and 3.4(b) above.

4. Directors

4.1 The Directors and their functions are set out in "Information on the Group – Directors, senior management and employees" in Part I.

4.2 The Directors' current directorships and partnerships and past directorships and partnerships within the last five years, if any, are as follows:

Name of Director	Position	Company
Willy Strothotte	Director	Glencore International AG
		Century Aluminium Corporation
		Metaleurop SA
		Asturiana de Zinc, S.L.
		Anaconda Nickel Limited
		Xstrata AG

Name of Director	Position	Company
Michael Davis	Director	Nedcor Investment Bank Limited
		Nedcor Investment Bank Holdings Limited
		Billiton Plc[1]
		Billiton SA Limited[1]
		Amalgamated Appliances Holdings Limited[1]
		Specialised Outsourcing Limited[1]
Trevor Reid	Director	Warrior International Limited[1]
Santiago Zaldumbide	Director	Asturiana de Zinc, S.L.
		Carburos Metálicos SA
		Fertiberia SA
		Sefanitro SA
		Energía e Industrias Aragonesas SA
		Rosticer SL
		Thyssen Krupp SA
		Sociedad Española del Acumulador Tudor SA[1]
		Radiotronica SA[1]
		Immobiliaria Urbis SA[1]
		Isolux – Wat SA[1]
Dr. Reto Domeniconi	Director	Bobst Group SA
		Genevoise, General Insurance Company
		Genevoise, Life Insurance Company
		Xstrata Holding AG
		Guccio Gucci NV
		Néstle S.A.[1]
		Coutts & Co. AG[1]
		Banque Cantonale Vaudoise[1]
		Sulzer AG
		Suez/Lyonnaise des Eaux[1]
		Sulzer Medical AG[1]
	Advisor	Logitech International SA[1]
	European Advisory Board Member	The Carlyle Group
	Honorary Member	Swiss – American Chamber of Commerce
Ivan Glasenberg	Director	Glencore International AG
		Anaconda Nickel Limited
		Enex Resources Limited
Paul Hazen	Director	Accel-KKR
		Vodafone Group Plc
		Safeway, Inc.
		Phelps Dodge Corporation
		E.phiphany, Inc.
		Willis Group Ltd.
		KSL Recreation Corporation
		Shanghai Commercial Bank[1]
		Epoch Partners[1]
		Wells Fargo and Company[1]
		Xstrata AG
David Issroff	Director	Xstrata AG
		Xstrata SA (Pty) Ltd
		Silicon Technology (Pty) Ltd
		Mange SW1 Ltd
Robert MacDonnell	Director	US Natural Resources, Inc.
		Safeway, Inc.
		Pac Trust Realty, Inc.
		Xstrata AG
		RIM AIR
		RIMSKI, Inc.
		Round Pond, Inc.
		MacDonnell Foundation
		Kohlberg Kravis Roberts & Co
		Owens-Illinois, Inc.
		Auto Zone, Inc.
		Vons Companies, Inc.
	General Partner	Kohlberg Kravis Roberts & Co [1]

Name of Director	Position	Company
Sir Steve Robson CB	Director	Partnerships UK plc Cazenove Group plc The Royal Bank of Scotland Group plc
Dr. Frederik Roux	Director	Fred Roux Investment Holdings (Pty) Limited Seacow Properties (Pty) Ltd Brakhoek Properties (Pty) Ltd Xstrata SA (Pty) Ltd Gencor Limited[1] Alusaf Limited[1] Richards Bay Minerals (Pty) Ltd[1]
David Rough[2]	Director	Legal & General Insurance Limited Legal & General Property Limited Legal & General UK Select Investment Trust plc Legal & General Ventures Limited BBA Group plc EMAP plc Land Securities plc[3] Mithras Investment Trust plc Mithras Investments Limited Legal & General Group plc[1] Group Trust plc[1]

[1] Past directorship/partnership.

[2] David Rough has agreed to become a Non-executive Director and Deputy Chairman of the Company with effect from 1 April 2002.

[3] David Rough has agreed to become a director of Land Securities plc with effect from 2 April 2002.

5. Directors' and other interests

5.1 Prior to the Merger becoming effective, none of the Directors or other connected persons (within the meaning of section 346 of the Companies Act) will have any interest in the Company's issued share capital.

5.2 Immediately following the Merger becoming effective and on Admission, the interests of the Directors and their immediate families (all of which are beneficial unless otherwise stated) in the Company's issued share capital which:

(a) are required to be notified by each Director pursuant to section 324 or section 328 of the Companies Act;

(b) are required pursuant to section 325 of the Companies Act to be entered into the register referred to therein; or

(c) are interests of a connected person (within the meaning of section 346 of the Companies Act) of a Director which would, if the connected person were a Director, be required to be disclosed under paragraph (a) or (b) above and the existence of which is known to or could with reasonable diligence be ascertained by that Director, are expected to be as follows:

	Number of Ordinary Shares following Admission	Percentage of issued share capital following Admission[1]
Willy Strothotte	0	0%
Michael Davis	32,040	0.01%
Trevor Reid	16,180	0.01%
Santiago Zaldumbide	40,770	0.02%
Dr. Reto Domeniconi	1,900	0%
Ivan Glasenberg	0	0%
Paul Hazen	40,470	0.02%
David Issroff	0	0%
Robert MacDonnell	51,370	0.02%
Sir Steve Robson	0	0%
David Rough*	2,870	0%
Dr. Frederik Roux	42,170	0.02%

[1] Assuming the Manager's Option is not exercised.

* David Rough has agreed to become a Non-executive Director and Deputy Chairman of the Company with effect from 1 April 2002.

5.3 The interests of the Directors together represent approximately 0.10% of the Company's expected issued share capital on Admission (assuming the Manager's Option is not exercised).

5.4 Immediately following Admission, the Directors are expected to hold the following awards of restricted Ordinary Shares and options over Ordinary Shares subject to the terms of the employee share schemes described in paragraphs 7.2 to 7.6 below: 6.B.26

Name of Director	Number of Ordinary Shares under option	Number of restricted Ordinary Shares awarded but not yet vested
Willy Strothotte	-	10,200
Michael Davis	1,475,000[1]	-
Trevor Reid	590,000	-
Dr. Reto Domeniconi	53,190	3,260
Paul Hazen	-	8,150
David Issroff	-	10,200
Robert MacDonnell	-	8,150
Dr. Frederik Roux	6,200	3,400
Eric Sarasin[2]	45,750	-
Daniel Sauter[3]	125,730	-
Thomas Schmidheiny[4]	55,585	-
Santiago Zaldumbide	80,000	-

(1) 885,000 of these Ordinary Shares are held by Glencore International.

(2) Mr. Sarasin resigned from the board of Xstrata AG on 3 May 2000.

(3) Mr. Sauter resigned from the board of Xstrata AG on 9 May 2001.

(4) Mr. Schmidheiny resigned from the board of Xstrata AG on 9 May 2001.

5.5 Save as disclosed above, on Admission, none of the Directors will have any interest in the Company's share or loan capital.

5.6 Other than as described below, no Director has or has had any interest in any transactions which are or were unusual in their nature or conditions or are or were significant to the Company's business or any of the Company's subsidiary undertakings and which were effected by the Company or any of the Company's subsidiaries during the current or immediately preceding financial year or during an earlier financial year and which remain in any respect outstanding or unperformed. By virtue of their being shareholders and employees of Glencore International, Willy Strothotte and David Issroff were interested in the acquisition of Glencore's interest in Asturiana, the sale of the Xstrata AG Group's interest in the United coal mine and the Acquisitions and by virtue of being a shareholder and employee of Glencore International, Ivan Glasenberg was interested in the Acquisitions.

5.7 Save for any interests which may arise under the underwriting arrangements (see "Additional information - Underwriting arrangements in this Part VIII), immediately following the Merger becoming effective, each of the following persons (not being a Director of the Company) directly or indirectly, will be interested in 3% or more of the Company's ordinary share capital, and the amount of such person's interest will be as follows:

Shareholder	Number of Ordinary Shares following Admission	Percentage of issued share capital following Admission
Glencore International	91,040,400[1]	40.0%[1]
Tuxedo Invest AG	7,800,000[2]	3.4%[1]

(1) Assuming the Manager's Option is not exercised.

(2) This is based on the notification made by Tuxedo Invest AG to Xstrata AG and SWX on 15 November 2001. The Company will not know the exact number of Ordinary Shares held by Tuxedo Invest AG until their Xstrata AG Shares are exchanged for Ordinary Shares.

5.8 Save as set out in this paragraph and in paragraph 5.7 above, the Company is not aware of any person who, immediately following the Merger becoming effective, will be interested (within the meaning of the Companies Act), directly or indirectly, in 3% or more of the Company's issued share capital.

5.9 Save as detailed above, the Company is not aware of any person who, immediately following the Merger becoming effective, will exercise, or could exercise, directly or indirectly, jointly or severally, control over the Company.

6. Directors' service agreements

6.1 Mr. Michael Davis and Mr. Trevor Reid have employment agreements with Xstrata Services (UK) Limited ("XSL"), but their services as Chief Executive and Chief Financial Officer respectively are provided to the Company under a secondment agreement entered into between the Company and XSL on 19 March 2002. Each of Mr. Davis and Mr. Reid is seconded to the Company for a fixed term of two years thereafter renewable by the Company for further periods of two years.

Mr. Davis' employment agreement provides for a salary of US$1,000,000 per annum and Mr. Reid's for a salary of US$380,000 per annum. In addition, each of Mr. Davis and Mr. Reid is entitled to receive permanent health, life and private medical insurance, a housing allowance of US$183,000 per annum and US$141,666 per annum respectively (to enable each to maintain a residence in Switzerland so as to qualify under Swiss law for a work permit) and to participate in the pension arrangements which are described in paragraph 8 below. In addition, each of Mr. Davis and Mr. Reid is entitled to participate in share option and bonus schemes operated by the Company. Mr. Reid is entitled to receive bonus payments as compensation for bonus and share option benefits he lost when he left his previous employment to join XSL of US$295,000 on 2 January 2003 and US$221,000 on 2 January 2004 providing he is in employment on those dates.

The employment of Mr. Davis and Mr. Reid may be terminated by not less than 12 months' notice by XSL or the Director concerned. On a termination of the employment agreement by XSL in breach, or if Mr. Davis or Mr. Reid resign in circumstances where they cannot in good faith be expected to continue in employment, each Director is entitled to be paid a sum equal to 150% of his annual salary, an amount equal to his previous year's bonus and to have all entitlements under any retirement benefit arrangements in which they participate paid up to the date of termination of employment in accordance with the relevant plan rules.

6.2 Mr. Santiago Zaldumbide has a professional services agreement with Asturiana (dated 29 January 1998) to act as Chairman of Asturiana. The agreement expires on 29 January 2007 unless renewed by mutual agreement or terminated earlier either by Mr. Zaldumbide giving three months' notice or upon his removal as Chairman. Mr. Zaldumbide is entitled to a total fee for the term of his agreement of €3,005,060 payable at a rate of €601,012 per annum less any fees received from certain specified external directorships. On termination of the agreement, other than on his voluntary termination or termination for gross negligence, Mr. Zaldumbide is entitled to receive a sum from the redemption of an insurance policy (acquired by Asturiana for a premium of €3,005,060), including any with profits bonus payable under the policy less the compensation received by him during the term of the agreement. On termination of the agreement by expiry of the fixed term, Mr. Zaldumbide is entitled to receive the capital redemption value of the policy, including the with profit bonus element, minus the aforementioned amount of €3,005,060 which he will already have received. Mr. Zaldumbide's entitlements under the insurance policy are in lieu of his receiving pension benefits or any increase in his fee during the term of his agreement with Asturiana. In addition, Mr. Zaldumbide is entitled to participate in share option and bonus schemes operated by the Company. Mr. Zaldumbide is engaged as a Director on the terms of a letter of appointment dated 18 March 2002. The appointment is on an indefinite basis subject to the existence of the agreement between Mr. Zaldumbide and Asturiana. Mr. Zaldumbide will receive no additional remuneration for his position as Director.

6.3 Mr. Willy Strothotte is engaged by the Company as a Non-executive Director and Chairman on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by Mr. Strothotte. The Company may terminate Mr. Strothotte's appointment at any time and on such termination Mr. Strothotte will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Mr. Strothotte will receive an annual fee of US$100,000 and is subject to confidentiality undertakings. Mr. Strothotte will receive an additional annual fee of US$15,000 for his membership and chairmanship of the Company's remuneration committee.

6.4 Mr. David Rough will be engaged by the Company as a Non-executive Director and Deputy Chairman on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 1 April 2002 and is terminable thereafter by six months notice by Mr. Rough. The Company may terminate Mr. Rough's appointment at any time and on such termination Mr. Rough will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Mr. Rough will receive an annual fee of US$80,000 and is subject to confidentiality undertakings. Mr. Rough will receive an additional annual fee of US$25,000 for his membership of the Company's remuneration committee and his chairmanship and membership of the nominations committee. Mr. Rough shall each year be entitled to notify the Company (a 'notification') what proportion, if any, of the post tax amount of his fees for that year he wishes to apply to acquire Ordinary Shares. The price at which he may so acquire Ordinary Shares shall be equal to the higher of the nominal value of an Ordinary Share and the exercise price which is set in respect of the next grant of options under the Xstrata LTIP following his notification.

6.5 Mr. David Issroff is engaged by the Company as a Non-executive Director on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by Mr. Issroff. The Company may terminate Mr. Issroff's appointment at any time and on such termination Mr. Issroff will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Mr. Issroff will receive an annual fee of US$60,000 and is subject to confidentiality undertakings.

6.6 Dr. Reto F. Domeniconi is engaged by the Company as a Non-executive Director on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by Dr. Domeniconi. The Company may terminate Dr. Domeniconi's appointment at any time and on such termination Dr. Domeniconi will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Dr. Domeniconi will receive an annual fee of US$60,000 and is subject to confidentiality undertakings. Dr. Domeniconi will receive an additional annual fee of US$15,000 for his membership and chairmanship of the Company's audit committee. Dr. Domeniconi shall each year be entitled to notify the Company (a 'notification') what proportion, if any, of the post tax amount of his fees for that year he wishes to apply to acquire Ordinary Shares. The price at which he may so acquire Ordinary Shares shall be equal to the higher of the nominal value of an Ordinary Share and the exercise price which is set in respect of the next grant of options under the Xstrata LTIP following his notification.

6.7 Mr. Ivan Glasenberg is engaged by the Company as a Non-executive Director on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by Mr. Glasenberg. The Company may terminate Mr. Glasenberg's appointment at any time and on such termination Mr. Glasenberg will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Mr. Glasenberg will receive an annual fee of US$60,000 and is subject to confidentiality undertakings. Mr. Glasenberg will receive an additional annual fee of US$10,000 for his membership of the Company's nominations committee.

6.8 Mr. Paul Hazen is engaged by the Company as a Non-executive Director on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by

Mr. Hazen. The Company may terminate Mr. Hazen's appointment at any time and on such termination Mr. Hazen will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Mr. Hazen will receive an annual fee of US$60,000 and is subject to confidentiality undertakings. Mr. Hazen will receive an additional annual fee of US$10,000 for his membership of the Company's remuneration committee. Mr. Hazen shall each year be entitled to notify the Company (a 'notification') what proportion, if any, of the post tax amount of his fees for that year he wishes to apply to acquire Ordinary Shares. The price at which he may so acquire Ordinary Shares shall be equal to the higher of the nominal value of an Ordinary Share and the exercise price which is set in respect of the next grant of options under the Xstrata LTIP following his notification.

6.9 Mr. Robert MacDonnell is engaged by the Company as a Non-executive Director on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by Mr. MacDonnell. The Company may terminate Mr. MacDonnell's appointment at any time and on such termination Mr. MacDonnell will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Mr. MacDonnell will receive an annual fee of US$60,000 and is subject to confidentiality undertakings. Mr. MacDonnell will receive an additional annual fee of US$10,000 for his membership of the Company's nominations committee. Mr. MacDonnell shall each year be entitled to notify the Company (a 'notification') what proportion, if any, of the post tax amount of his fees for that year he wishes to apply to acquire Ordinary Shares. The price at which he may so acquire Ordinary Shares shall be equal to the higher of the nominal value of an Ordinary Share and the exercise price which is set in respect of the next grant of options under the Xstrata LTIP following his notification.

6.10 Dr. Frederik Roux is engaged by the Company as a Non-executive Director on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by Dr. Roux. The Company may terminate Dr. Roux's appointment at any time and on such termination Dr. Roux will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Dr. Roux will receive an annual fee of US$60,000 and is subject to confidentiality undertakings. Dr. Roux will receive an additional annual fee of US$10,000 for his membership of the Company's audit committee. Dr. Roux shall each year be entitled to notify the Company (a 'notification') what proportion, if any, of the post tax amount of his fees for that year he wishes to apply to acquire Ordinary Shares. The price at which he may so acquire Ordinary Shares shall be equal to the higher of the nominal value of an Ordinary Share and the exercise price which is set in respect of the next grant of options under the Xstrata LTIP following his notification.

6.11 Sir Steve Robson is engaged by the Company as a Non-executive Director on the terms of a letter of appointment. The appointment is for an initial fixed term of 36 months commencing on 25 February 2002 and is terminable thereafter by six months notice by Sir Steve Robson. The Company may terminate Sir Steve Robson's appointment at any time and on such termination Sir Steve Robson will not be entitled to any compensation for loss of office. The term may be renewed by the Board. Sir Steve Robson will receive an annual fee of US$60,000 and is subject to confidentiality undertakings. Sir Steve Robson will receive an additional annual fee of US$10,000 for his membership of the Company's audit committee. Sir Steve Robson shall each year be entitled to notify the Company (a 'notification') what proportion, if any, of the post tax amount of his fees for that year he wishes to apply to acquire Ordinary Shares. The price at which he may so acquire Ordinary Shares shall be equal to the higher of the nominal value of an Ordinary Share and the exercise price which is set in respect of the next grant of options under the Xstrata LTIP following his notification.

6.12 In the year ended 31 December 2001, the total aggregate of the remuneration paid and benefits in kind granted (under any description whatsoever) to the Directors by members of the Group was US$350,000. The aggregate of the remuneration payable (excluding benefits in kind) to the Directors by members of the Group in respect of the year ending 31 December 2002 under the arrangements in force at the date of this document is expected to amount to approximately US$2,800,000. In addition, the Executive Directors may receive additional bonus payments at the discretion of the remuneration committee.

6.13 There is no arrangement under which a Director has agreed to waive future emoluments nor have there been any such waivers during the financial year immediately preceding the date of this document.

6.14 There are no outstanding loans or guarantees granted or provided by any member of the Group to or for the benefit of any of the Directors.

6.15 Save as set out above, the Directors:

(a) have not been directors or partners of any companies or partnership at any time in the previous five years;

(b) have no unspent convictions relating to indictable offences;

(c) have had no bankruptcies or individual voluntary arrangements;

(d) have not been directors with an executive function of any company at the time of or within 12 months preceding any receivership, compulsory liquidation, creditors voluntary liquidation, administration, company voluntary arrangement or any composition or arrangement with creditors generally or any class of creditors of such company;

(e) have not been partners of any partnership at the time of or within 12 months preceding any compulsory liquidation, administration or partnership voluntary arrangements of such partnership;

(f) have not been partners of any partnership at the time of or within 12 months preceding a receivership of any assets of such partnership;

(g) have not had any of their assets subject to any receivership; and

(h) have not received any public criticisms by statutory or regulatory authorities (including recognised professional bodies) and have not been disqualified by a court from acting as a director of a company or from acting in the management or conduct of the affairs of a company.

7. Details of share schemes

The Xstrata LTIP

7.1 (a) The Xstrata LTIP has two elements:

(i) a long term incentive plan award, which is a free contingent award of Ordinary Shares that will vest after three years, subject to, and to the extent that, performance criteria determined at the time of grant have been satisfied; and

(ii) a share option to acquire Ordinary Shares at a specified exercise price after the third anniversary of grant, to the extent that performance conditions have been satisfied.

LTIP awards may be granted in different forms to suit local regulatory and tax requirements, provided that the economic effect is the same. In countries where an award involving real shares is not appropriate or feasible for legal, regulatory or tax reasons, a phantom version of both elements of the Xstrata LTIP will be operated. This will deliver a cash payment equal to the net benefit a participant would have derived from the vesting or exercise of a share based LTIP award or option.

(b) The remuneration committee may grant awards under the Xstrata LTIP at its discretion at any time during the period of 42 days following Admission and thereafter within 42 days after the announcement by the Company of its results for any period or within 42 days of any day on which the remuneration committee considers that exceptional circumstances exist which justify a grant. No payment will be required for the grant of a LTIP award or option.

(c) Executive Directors and employees of the Company and its subsidiaries are eligible to participate at the discretion of the remuneration committee and selection will be based on agreed criteria, such as, for example, individual performance, role, skills and potential.

(d) Options and LTIP awards may be granted over newly issued or existing Ordinary Shares. Any existing Ordinary Shares may be acquired and held by the Xstrata Employee Share Ownership Trust established to benefit employees and former employees of the Group. To the extent that new Ordinary Shares are to be issued to satisfy awards granted under the Xstrata LTIP, the aggregate number that may be capable of issue on exercise or vesting of such rights under the Xstrata LTIP, when added to the number of Ordinary Shares issued or issuable pursuant to subsisting rights to subscribe for Ordinary Shares granted in the preceding ten years under any other discretionary employees' share scheme of the Company shall not, on the date of grant, exceed 5% of the Company's issued share capital. The options and awards granted under the Xstrata AG Share Schemes, which will be replaced by rights over Ordinary Shares upon the Merger, will not be counted against this limit.

(e) No consideration will be payable on the vesting of an LTIP award. On exercise of an option, a participant will be required to pay an exercise price which will not be less than the market value of an Ordinary Share on the date of grant or, if greater, and in the case of an option to subscribe for shares, the nominal value of an Ordinary Share. Market value will be based upon the average closing middle-market quotation of an Ordinary Share on the London Stock Exchange on the seven dealing days which immediately precede the date of grant.

(f) The aggregate value of options and LTIP awards made to an individual under the Xstrata LTIP in any one year may not exceed an amount equal to two times base salary (other than in very exceptional circumstances where the limit may not exceed four times base salary). The value in the case of an option will be the Black Scholes (or similar) valuation of that option based on its expected life, but being subject to a lower and upper limit (expressed as a percentage of the market value of the underlying Ordinary Shares) determined by the remuneration committee. The value in the case of an LTIP award will be based on the value of the Ordinary Shares subject to that award.

(g) LTIP awards and options will normally vest or be capable of exercise at the end of a three year performance period providing the employee has remained in employment with the Group. The number of Ordinary Shares that may be acquired will depend on the extent to which performance targets set by the remuneration committee at the time of grant have been satisfied. Options will remain exercisable for a maximum of seven years or such shorter period as the remuneration committee may specify (after which they will lapse). Performance targets are not capable of being retested at the end of the performance period, so that any proportion of a LTIP award or option which does not vest after three years will lapse.

(h) Early vesting and exercise of options and LTIP awards will be permitted where the participant leaves employment in certain circumstances being death, ill health or disability and the sale of a business or company in which the participant is employed. Where participants leave employment for any other reason, vested options and LTIP awards will remain exercisable for a period of one year, after which they shall lapse; unvested options and LTIP awards shall lapse immediately unless the remuneration committee determines otherwise, in which case they shall vest to the extent to which the performance targets have been met.

(i) If there is a change of control or any amalgamation or reconstruction or winding up of the Company, options and LTIP awards will automatically vest in full or (in certain circumstances) may be exchanged for equivalent options or LTIP awards over shares in the acquiring company.

(j) LTIP awards and options are not pensionable nor are they transferable except as determined by the remuneration committee and on such terms and to such persons (or categories of person) as they shall specify. Such transfers will normally only be permitted where there will be no immediate realisation of economic benefit by means of a sale to an unconnected third party. In all other cases, awards may only be realised by persons to whom they are granted (or, in the case of death, by their personal representatives). Ordinary Shares allotted or transferred under the Xstrata LTIP will rank equally with Ordinary Shares then in issue except in respect of entitlements arising prior to the date of exercise or vesting (save that dividends or dividend equivalents may be payable prior to vesting at the discretion of the remuneration committee).

(k) The numbers of Ordinary Shares subject to options and LTIP awards and the price (if any) payable on their exercise may be adjusted if there is a variation of the Company's share capital such as a capitalisation issue, sub-division, consolidation or reduction of the share capital.

(l) The Board may amend the Xstrata LTIP, but any alterations to the provisions relating to eligibility, equity dilution, individual participation limits and the adjustments that may be made following a variation of the share capital cannot be altered to the advantage of actual or potential participants without the prior approval of Shareholders in general meeting (except for minor amendments to benefit the administration of the Xstrata LTIP, to take account of a change in legislation or developments in law affecting the Xstrata LTIP or to obtain or maintain favourable tax, exchange control or regulatory treatment for participants in the Xstrata LTIP or for any member of the Group). No amendment may operate to affect adversely any right already acquired by a participant without their prior consent. The Board has power to create sub-plans to the Xstrata LTIP to accommodate local variations in tax or regulatory treatment but such sub-plans must fall within the overall objectives and spirit of the Xstrata LTIP.

(m) The Xstrata LTIP will terminate on the tenth anniversary of the date of Admission when no further awards will be granted, or such earlier time as the remuneration committee may consider appropriate, but the rights of existing participants will not thereby be affected.

The Xstrata AG Share Schemes

7.2 The Xstrata AG Share Schemes comprise the Xstrata AG Management and Employee Share Incentive Scheme (the "Management Scheme"), the Xstrata AG Directors' Option Scheme (the "Old Directors' Option Scheme") and the Xstrata AG Directors' Incentive Scheme (the "New Directors' Scheme"). Awards and options subsisting under these schemes will be converted into equivalent rights over Ordinary Shares upon the Merger becoming effective and after Admission will continue to be subject to the terms and conditions of the Xstrata AG Share Schemes which are detailed below. The number of Ordinary Shares over which the replacement rights will be granted will be proportionate to the number of Xstrata AG Shares under the existing awards and options on the basis of the Exchange Ratio.

It is intended that the replacement options will as far as possible be satisfied by the transfer of Ordinary Shares which will be held by the trustees of the Xstrata Employee Share Ownership Trust and the Xstrata Employee and Directors Share Ownership Trust. Upon the Merger becoming effective the trustees of these trusts will be entitled to receive 1,250,120 Ordinary Shares relating to 125,012 Xstrata AG Shares held by Xstrata AG in treasury for the purpose of the Xstrata AG Share Schemes. These Ordinary Shares will be available to satisfy the replacement options granted by the Company under the Xstrata AG Share Schemes and awards and options granted under other employees' share schemes established by the Company.

Xstrata AG Management and Employee Share Incentive Scheme

7.3 (a) The Management Scheme which was established in 1998 consists of two elements:

(i) Xstrata AG Shares purchased by employees at a price equal to market value, which are restricted from dealings for a period of two years at the end of which period the participant may call for delivery of the Xstrata AG Shares; and

(ii) share options to acquire Xstrata AG Shares at an exercise price fixed at the date of grant which are granted to employees in proportion to the number of restricted Xstrata AG Shares purchased by them. A participant may request the payment of a cash sum equivalent to the net gain he would have received had he exercised the option and acquired Xstrata AG Shares on the exercise.

(b) Upon the Merger becoming effective, holders of 1,077 restricted Xstrata AG Shares will become entitled (as other shareholders will) to a proportionate number of Ordinary Shares based upon the Exchange Ratio, which will be subject to the same restrictions as apply to their Xstrata AG Shares under the terms of the Management Scheme. Options over a total of 160,980 Xstrata AG Shares will be replaced by equivalent options over a proportionate number of Ordinary Shares based upon the Exchange Ratio. The replacement options will be subject to the same terms and conditions under the Management Scheme as the options they replace and will be exercisable between the same dates and at the same aggregate exercise price. The exercise price per Xstrata AG Share (which ranges from CHF 194.70 to CHF 432.45) will be adjusted by the inverse of the Exchange Ratio so that the intrinsic value of the options immediately before and after the Merger remains unaffected.

(c) The replacement options will generally be exercisable between two and five years after the date on which the options they replace were granted and will lapse on the fifth anniversary of such grant. Options are treated as having become vested on the second anniversary of their grant.

(d) If a participant ceases employment with the Group for any reason, he will remain entitled to exercise all of his vested options and a proportion of his unvested options (pro rated according to the proportion which the period since the date of grant bears to the two year vesting period) in accordance with the terms of the Management Scheme (except where cessation is by reason of gross negligence or misconduct when all unvested options will lapse). A participant's restricted Ordinary Shares will automatically vest and be released to him within five days of such cessation.

(e) If a participant ceases to be employed by the Group by reason either of his employing company ceasing to be under the control of the Company or the business in which he is working is transferred out of the Group, all his options will automatically vest and become immediately exercisable and will remain exercisable for three years from vesting. A participant's restricted Ordinary Shares will automatically vest and be released to him.

(f) In the case of a takeover, reconstruction, amalgamation or winding up of the Company, or a public offer (whether conditional or not) to acquire all the Ordinary Shares of the Company, all of a participant's options will automatically vest and become immediately exercisable and will remain exercisable for three years from vesting. All restricted Ordinary Shares will automatically vest and be released to participants.

(g) The numbers of Ordinary Shares subject to options and the price payable on their exercise may be adjusted if there is a variation of the Company's share capital such as a capitalisation issue, sub-division, consolidation or reduction of share capital or a merger, or other similar transaction involving the Company.

(h) Loans have been made to a number of participants in the Management Scheme to enable them to meet tax liabilities arising on the grant of their options. These loans are repayable to the extent that the associated options are exercised (or if options lapse on a participant ceasing to be in employment due to gross negligence or misconduct). The grant of the replacement options will not trigger repayment of these loans which will be acquired by Xstrata (Schweiz) AG conditional on the Merger becoming effective, to which repayment will be due in accordance with the original terms.

Xstrata AG Directors' Incentive Scheme

7.4 (a) The New Directors' Scheme was established in 1998 and its provisions are substantially the same as those of the Management Scheme described at paragraph 7.3 above. Executive and non-executive directors of the Xstrata AG Group have been granted options and have acquired restricted Xstrata AG Shares.

(b) Upon the Merger becoming effective, holders of 4,336 restricted Xstrata AG Shares will become entitled (as other shareholders will) to a proportionate number of Ordinary Shares based upon the Exchange Ratio, which will be subject to the same restrictions as apply to their Xstrata AG Shares under the terms of the New Directors' Scheme. Options over a total of 16,099 Xstrata AG Shares will be replaced by equivalent options over a proportionate number of Ordinary Shares based upon the Exchange Ratio. The replacement options will be subject to the same terms and conditions under the New Directors' Scheme as the options they replace and will be exercisable between the same dates and at the same aggregate exercise price. The exercise price per Xstrata AG Share (which ranges from CHF 182.08 to CHF 432.45) will be adjusted by the inverse of the Exchange Ratio so that the intrinsic value of the options immediately before and after the Merger remains unaffected.

The Xstrata AG Directors' Option Scheme

7.5 (a) Options were granted to executive and non-executive directors of the Xstrata AG Group under the terms of the Old Directors' Scheme prior to the implementation of the Management Scheme and New Directors' Scheme in September 1998.

(b) Subsisting options granted under this scheme relate to 2,220 Xstrata AG Shares exercisable at an exercise price per Xstrata AG Share of CHF 208.80 which are held by individuals who are no longer directors. These options have vested and are currently exercisable up until 5 September 2002. Option holders will not be offered the opportunity to exchange their original option for a replacement option over Ordinary Shares. If any options have not been exercised at the date of the Merger, the Company will exercise its right to satisfy the exercise of the options with a cash payment calculated by reference to the market price of a Xstrata AG Share on the trading day prior to the Merger becoming effective.

Options granted to Michael Davis and Trevor Reid

7.6 Michael Davis and Trevor Reid were each granted options to acquire 59,000 Xstrata AG Shares in September 2001 and in January 2002 respectively pursuant to the terms on which they were recruited. The principal terms of these options are summarised below. See " - Options granted to Michael Davis" and " - Options granted to Trevor Reid" in this Part VIII. Michael Davis was also granted an option to acquire 88,500 Xstrata AG Shares by Glencore International on 19 September 2001, the terms of which are summarised below (the "Glencore option"). See " - The Glencore option" in this Part VIII. All of these options will be replaced by new options over a proportionate number of Ordinary Shares based upon the Exchange Ratio upon the Merger becoming effective and thereafter will be subject to the same terms and conditions as applied before the Merger. Except as described below, the terms of the options are substantially the same as those of the Management Scheme described above.

Options granted to Michael Davis

(a) Michael Davis has been granted options to acquire 59,000 Xstrata AG Shares. These options were granted in two tranches over an equal number of Xstrata AG Shares. The exercise price of the two tranches following the Merger is to be fixed on 1 October 2002 and 1 October 2003 respectively, by reference to the then market value of an Ordinary Share on those dates. Where an option vests and becomes exercisable early for example by virtue of a takeover of the Company or a cessation of employment as specified in (c) below, the exercise price for any tranche of the options for which the exercise price has not already been determined shall be the lower of (i) the market value of a share averaged over the three months prior to the date of vesting and (ii) in the case of a cessation of employment the date of that cessation, or in the case of a takeover or other event, the market value of a share on the date immediately prior to the completion of the relevant event as appropriate.

(b) An option will vest, and become exercisable, on the third anniversary of the date by reference to which the exercise price for that option is fixed. The options will normally lapse on the seventh anniversary of the date of vesting.

(c) If Michael Davis ceases to be employed by the Group for any reason he may exercise any vested options within six months of such cessation (after which time they will lapse). Any unvested options will lapse if he is dismissed lawfully under the terms of his employment contract or if he voluntarily resigns (except where he has valid reason to terminate his employment as defined in his employment contract, in which case all unvested options shall immediately vest and become exercisable for a period of six months). In all other cases, he will remain entitled to retain his unvested options which will vest in accordance with their terms, after which they will remain exercisable for a period of six months.

(d) The options may be replaced by options over shares in the acquiring or successor company following a takeover, reconstruction or amalgamation of the Company. The replacement options shall be under the same terms, and be exercisable on the same dates, as the options for which they were exchanged, provided that where a replacement of options occurs prior to the date on which the exercise price of the options or tranche thereof has been determined, the number of shares over which the replacement options are granted and the exercise price shall be calculated by reference to the market value of a share in that acquiring or successor company.

(e) The options are not transferable except on the same terms as apply under the Xstrata LTIP as described at paragraph 7.1(j) above.

The Glencore option

(a) The 88,500 Xstrata AG Shares over which the Glencore option is granted are held by Glencore. The exercise price of the Glencore option is CHF205 per Xstrata AG Share and upon the Merger becoming effective this will be adjusted by the inverse of the Exchange Ratio so that the intrinsic value of the option immediately before and after the Merger remains unaffected.

(b) The replacement option that will be granted will vest and become exercisable on the third anniversary of the original date of grant and will remain exercisable for seven years thereafter (after which time it will lapse).

(c) Except as specified in (a) and (b) above the terms of the option will be substantially the same as those set out in " - Options granted to Michael Davis" above.

Options granted to Trevor Reid

(a) Trevor Reid has been granted options to acquire 59,000 Xstrata AG Shares. These options were granted in three tranches. The first tranche relates to one half of the total number of Xstrata AG Shares and the second and third tranches to one quarter of the total number of Xstrata AG Shares. The exercise price of the first tranche is CHF189 which was the weighted average market price of an Xstrata AG Share during December 2001 and upon the Merger becoming effective this will be adjusted by the inverse of the Exchange Ratio so that the intrinsic value of the option immediately before and after the Merger remains unaffected. The exercise price of the second two tranches after the Merger is to be fixed on 15 January 2003 and 15 January 2004 respectively, by reference to the market value of an Ordinary Share on those dates. Where an option vests and becomes exercisable early for example by virtue of a takeover of the Company or a cessation of employment as specified in (c) below, the exercise price for any tranche of the options for which the exercise price has not already been determined shall be the lower of (i) the market value of a share averaged over the three months prior to the date of vesting and (ii) in the case of a cessation of employment the date of that cessation, or in the case of a takeover or other event, the market value of a share on the date immediately prior to the completion of the relevant event as appropriate.

(b) The options will vest, and become exercisable, on the third anniversary of the date by reference to which the exercise price is fixed. The options will normally lapse on the seventh anniversary of the date of vesting.

(c) If Trevor Reid ceases to be employed by the Group for any reason he may exercise any vested options within six months of such cessation (after which time they will lapse). Any unvested options will lapse if he is dismissed lawfully under the terms of his employment contract or if he voluntarily resigns (except where he has valid reason to terminate his employment as defined in his employment contract, in which case all unvested options shall immediately vest and become exercisable for a period of six months). In all other cases, he will remain entitled to retain his unvested options which will vest in accordance with their terms, after which they will remain exercisable for a period of six months.

(d) The options may be replaced by options over shares in the acquiring or successor company following a takeover, reconstruction or amalgamation of the Company. The replacement options shall be under the same terms, and be exercisable on the same

dates, as the options for which they were exchanged, provided that where a replacement of options occurs prior to the date on which the exercise price of the options or tranche thereof has been determined, the number of shares over which the replacement options are granted and the exercise price shall be calculated by reference to the market value of a share in that acquiring or successor company.

(e) The options are not transferable except on the same terms as apply under the Xstrata LTIP as described at paragraph 7.1(j) above.

The Xstrata Annual Bonus Plan (the "Bonus Plan")

7.7 (a) The Executive Directors and certain other senior executives of the Group will be eligible to participate in the Bonus Plan.

(b) The maximum bonus pool available for distribution to participants in the Bonus Plan will be calculated by reference to a fixed proportion of the net profits of the Group during a performance period. This proportion will be determined by the remuneration committee and communicated to participants in advance of the performance period.

(c) The payment of any bonus under the Bonus Plan will be subject to a hurdle rate, such that the Group's return on capital should be at least equal to the Group's average cost of borrowing. If this hurdle is not reached, the bonus pool will be zero. The amount of the bonus pool that is distributed in any one year, and the relative proportions payable to each participant will be at the discretion of the remuneration committee. The remuneration committee will retain the discretion not to award a bonus to a participant, but instead make a contribution to a trust for the benefit of an employee (or employees) of an equivalent sum.

(d) The amount of bonus payable under the Bonus Plan that any one participant is eligible to receive in cash in any one year will be limited to 100% of the individual's basic salary.

(e) Any amount in excess of the limit that would otherwise be payable to an individual in any one year under the Bonus Plan will be deferred for a period of one year. Deferred amounts which may, at the discretion of the remuneration committee, be payable in the form of cash or Ordinary Shares having an equivalent value (measured by reference to the market value of an Ordinary Share at the date the bonus is determined) and will be paid at the end of the deferral period, provided that the employee has remained in employment throughout. The total cash received plus the value of any deferred element shall not exceed 200% of a participant's basic salary in the year in which that bonus is calculated.

(f) It is expected that any Ordinary Shares required to satisfy any deferred element of the bonus payments will be purchased in the market and held in the Xstrata Employee Share Ownership Trust for the deferral period. There is no intention to use newly issued Ordinary Shares for the Bonus Plan.

The Xstrata Employee Share Ownership Trust

7.8 (a) The Xstrata Employee Share Ownership Trust is intended to be established by the Company with effect from the Merger becoming effective for the benefit of employees and former employees of the Group, and their spouses, widows, widowers and children or step-children under the age of 18. The trust will be used, inter alia, to co-ordinate the funding and manage the delivery of Ordinary Shares for option and LTIP awards granted under the LTIP and the options that will be granted by the Company to replace the options granted under the Xstrata AG Share Schemes as described above.

(b) The trustee will not be permitted to hold more than 5% of the issued share capital of the Company at any one time.

(c) The Company will have the power to appoint new and additional trustees or to remove any trustee. It will also have the power to amend the trust deed with the agreement of the trustee. The trustee will be entitled to an indemnity out of the assets of the trust fund and, if they are insufficient, from the Company against any claims, costs and liabilities which it may incur in carrying out its duties (other than where it has been fraudulent, negligent or guilty of gross misconduct).

(d) It is intended that the trust will be funded by contributions from employing companies in the Group and/or loans from the Group or from external sources.

The Xstrata Employee and Directors Share Ownership Trust

7.9 (a) The Xstrata Employee and Directors Share Ownership Trust is intended to be established by the Company with effect from the Merger for the benefit of the same persons as are described in paragraph 7.8(a) above and, in addition, any existing or former non-executive directors of the Xstrata AG Group. The Trust will be used, inter alia, to co-ordinate the funding and manage the delivery of Ordinary Shares for the options that will be granted by the Company to replace the options granted under the Xstrata AG Share Schemes as described above where those have been granted to non-executive directors of Xstrata AG. It is not anticipated that the trust will be funded on an ongoing basis after Admission.

(b) Save as described in sub-paragraph (a) above, the terms of the trust will be substantially the same as those set out at paragraph 7.8 above.

8. Pensions

The Group operates a number of retirement and related benefit plans for its employees. The plans are operated by the Group in accordance with local custom and practice and, where funded, assets are invested externally from the Group and are regulated by local

legislation. The benefits provided by the retirement plans vary by jurisdiction and include retirement pensions, retirement lump sums, separation payments, risk benefits and post-retirement medical benefits.

The majority of the Group's employees are covered by defined contribution retirement arrangements where on retirement the employees receive benefits based on the value of their share of the fund. Contributions to the funds are made by the Group, as well as in some cases by employees, and are generally based on a fixed percentage of pensionable salary of up to 20%. Payments to the pension plans are recognised as an operating expense each year. The Group also operates a small number of defined benefit arrangements (which relate to a small proportion of employees) which, according to the most recent actuarial valuations, are fully funded or provided for as explained in "Financial Information" in Part VI. In some cases these defined benefit plans are in the process of being converted to defined contribution. There is an explanation of the retirement plans with financial information in "Financial Information" in Part VI.

The Group intends to establish money purchase retirement benefit plans for certain senior employees, whose participation will be at the invitation of the Group. Michael Davis and Trevor Reid have accepted the Group's invitation to participate from their respective dates of joining the Group.

The plans will be designed so as to optimise taxation implications, having regard to the taxation and employment status of each executive.

It is intended that contributions will be calculated on actuarial advice with the objective of accumulating sufficient funds over the working lifetime of each executive to provide an overall target pension which will be equivalent to approximately 60% of final salary at normal retirement age, for executives who begin participating in the plans at the age of 40. The actual benefits payable will however be based on the amount which has accumulated in that member's money purchase account.

Such contributions are inclusive of contributions from the relevant individuals whose contracts of employment set out the rates, if any, that they are required to pay as members. In the case of Trevor Reid the rate of contribution will be 5% of base salary. For Michael Davis the contribution rate will be 0%.

It is intended that normal retirement age under the plans will be age 60. If a relevant individual leaves or retires early, the benefit is the amount that has accumulated in his money-purchase account.

It is also intended that risk benefit insurance plans will be established to provide benefits in respect of the relevant individual on death before retirement. The intention is that a lump sum benefit of four times base salary will be paid, and surviving dependants will receive pensions. In the case of a spouse, the lifetime pension is intended to be approximately 50% of base salary immediately prior to death, and for each eligible orphan a pension of approximately 10% of base salary will be paid until age 18, or if in full-time education, until age 21.

On permanent disability, it is intended that insurance will be established so that a relevant individual will receive a replacement income of approximately 75% of base salary until normal retirement age. Contributions to the relevant plans will continue to be paid on behalf of the relevant individual during any periods when the replacement income is paid.

Where it is mandatory for a relevant individual to participate in a pension scheme other than social security in the country in which he is employed, the Group will pay required contributions to such a scheme on behalf of the individual in addition to those described above.

Benefit scales defined above will be subject to revision where taxation or other legislation so requires or permits.

9. Underwriting arrangements

Underwriting Agreement

9.1 On 20 March 2002, the Company, Xstrata AG, the Underwriters and the Sponsor entered into the Underwriting Agreement. Under the Underwriting Agreement:

(a) on the terms and subject to the conditions referred to in the Underwriting Agreement:

  (i) the Underwriters have severally agreed to procure subscribers for, or failing which subscribe themselves, Ordinary Shares issued by the Company at the Offer Price; and

  (ii) the Company has granted the Global Co-ordinator, on behalf of the Underwriters, the Manager's Option, *inter alia*, to cover over-allotments or further allotments, if any, arising in connection with the Global Offer and to cover short positions arising from stabilisation transactions;

(b) the Global Co-ordinator, on behalf of the Underwriters, will deduct from the proceeds of the Global Offer certain costs, charges and fees in connection with the Global Offer (together with any related value added tax) as set out in the Underwriting Agreement, in total estimated to be £41 million (assuming no exercise of the Manager's Option) and, if the Manager's Option is exercised in full, in total estimated to be £46 million;

(c) the Company has also agreed to pay the expenses of the Global Offer (together with any related value added tax) including (but not limited to) its own legal fees and expenses, fees of the registrar, other advisers fees and expenses, advertising charges and certain expenses of the Joint Bookrunners;

(d) the underwriting obligations of the Underwriters to procure subscribers for, or failing which subscribe themselves, Ordinary Shares in the Global Offer are subject to certain conditions. These conditions include, among others, the absence of any breach

of representation or warranty under the Underwriting Agreement. In addition, the Global Co-ordinator, with the agreement of the other Joint Bookrunners, on behalf of the Underwriters, has the right to terminate the Underwriting Agreement, exercisable prior to Admission in certain specified circumstances which are typical for an agreement of this nature;

(e) the Company has granted the Manager's Option. This option will be exercisable in whole or in part on one occasion only by the Global Co-ordinator, in consultation with the other Joint Bookrunners, on behalf of the Underwriters, for the period commencing on the date of the Underwriting Agreement and expiring on the 30th day following Admission;

(f) the Company has given certain customary representations, warranties and undertakings to the Underwriters and the Sponsor;

(g) the Company has given certain customary indemnities to the Underwriters and the Sponsor under which claims could be brought after Admission;

(h) the Company has agreed to restrictions, among other things, on the issue of Ordinary Shares and the grant of options or warrants over Ordinary Shares as further described in "The Global Offer and related matters – Lock-up arrangements" in Part III (other than a grant of options, in accordance with normal practice, or the exercise of options under the arrangements described in paragraph 7 of this Part VIII) for a period of six months from Admission without the prior written consent (not to be unreasonably withheld or delayed) of the Global Co-ordinator;

(i) the parties have given certain covenants to each other regarding compliance with laws and regulations affecting the making of the Global Offer in relevant jurisdictions;

(j) each Underwriter has agreed that, except as permitted by the Underwriting Agreement, it will not offer or sell the Ordinary Shares (i) as part of their distribution at any time or (ii) otherwise until 40 days after the later of the commencement of the Global Offer and the closing of the Global Offer, within the United States or to, or for the account or benefit of, US persons, and it will have sent to each dealer to which it sells Ordinary Shares during the distribution compliance period a confirmation or other notice setting forth the restrictions on offers and sales of the Ordinary Shares within the United States or to, or for the account or benefit of, US persons. Terms used in this paragraph have the meanings given to them by Regulations S;

(k) the Ordinary Shares are being offered outside the United States to non-US persons in reliance on Regulation S. The Underwriting Agreement provides that the Underwriters may, directly or through their US broker-dealer affiliates, arrange for the offer and resale of Ordinary Shares within the United States only to Qualified Institutional Buyers in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A or another exemption from, or transaction not subject to, the registration requirements of the Securities Act; and

(l) the Company has appointed the Sponsor to act as sponsor for the purpose of the Company's application for Admission.

9.2 In connection with settlement and stabilisation, the Global Co-ordinator, as stabilising manager, has entered into a stock lending agreement with Glencore International. Pursuant to this agreement, the Global Co-ordinator will, from Admission, be able to borrow up to 15,000,000 Ordinary Shares. This agreement will allow the Global Co-ordinator to settle, on Admission, over-allotments, if any, to cover over-allotments or further allotments, if any, in each case made in connection with the Global Offer and to cover short positions arising from stabilisation transactions.

Lock-up Agreement

9.3 Pursuant to a Lock-up Agreement dated 20 March 2002, Glencore International has agreed with the Global Co-ordinator (on behalf of the Underwriters), subject to certain exceptions, among other things, not to offer, lend, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, mortgage, charge, assign, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any Ordinary Shares or any securities exchangeable for or convertible into, or substantially similar to, Ordinary Shares (or any interest therein or in respect thereof) or any rights arising from or attaching to any such shares at any time, or enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership, of Ordinary Shares, or enter into any other transaction with the same economic effect as, or agree to do, or announce or otherwise publicise the intention to do any of the foregoing, until the date falling six months after Admission, without the prior written consent of the Global Co-ordinator.

9.4 The Lock-up Agreement allows Glencore International to lend Ordinary Shares to the Global Co-ordinator pursuant to the stock lending agreement described in paragraph 9.2 above.

10. Agreements relating to the Acquisitions and the Merger

The Acquisition Agreement

10.1 On 21 February 2002, the Purchasers, Xstrata AG and the Vendors entered into the Acquisition Agreement pursuant to which:

(a) the Company agreed to acquire from Glencore International the entire issued share capital of Glencore Overseas AG;

(b) Xstrata (Schweiz) AG agreed to purchase from Glencore International the entire issued share capital of Duiker Marketing AG; and

(c) Xstrata South Africa (as to 272,935,214 shares) and the Company (as to 66,233,332 shares) agreed to purchase from the Duiker Mining Shareholders the entire issued share capital of Duiker.

10.2 Following the Merger, Xstrata (Schweiz) AG and Xstrata South Africa will be wholly-owned subsidiaries of the Company. The effective date of the Acquisitions is 1 January 2002. Under the terms of the Acquisition Agreement, Completion is scheduled to occur not later than 25 March 2002, or such later date as may be agreed between Glencore International and the Company.

10.3 Under the terms of the Acquisition Agreement, the Purchasers agreed to purchase the Coal Assets for cash and Ordinary Shares with an aggregate value of US$2,067,910,000 (which includes an agreed amount relating to working capital of US$73,000,000), in addition to which the Company has agreed to assume net indebtedness of the Enex and Duiker Groups and procure the repayment of shareholder loans to Glencore International, resulting in a total value of US$2,573,000,000.

10.4 The purchase price comprises:

(a) a compensation payment of US$995,452,000 for the shares of Glencore Overseas AG, to be satisfied by the Company by the allotment to Glencore International of such number of Ordinary Shares at the Offer Price as will result in Glencore International owning (together with the Ordinary Shares received by it in the Merger and whether or not the Manager's Option is exercised) 40% of the issued Ordinary Shares, and as to the balance in cash;

(b) US$150,000,000 in cash for the shares of Duiker Marketing AG, to be paid by Xstrata (Schweiz) AG to Glencore International; and

(c) US$922,458,000 in cash for the shares of Duiker, to be paid by the Company and Xstrata South Africa to the Duiker Mining Shareholders.

In the event that the Ravensworth Agreement is terminated:

(a) at any time prior to Completion for any reason beyond the reasonable control of either Glencore International or the Company, the compensation payment for the shares of Glencore Overseas AG will be reduced by US$10,000,000;

(b) at any time following Completion for any reason beyond the reasonable control of the Company, Glencore International will pay to the Company US$10,000,000 (plus interest accrued thereon from the date of Completion to the date of payment).

10.5 The cash element of the purchase price will be satisfied in part from the proceeds of the Global Offer, and as to the balance from the Syndicated Loan Facility.

10.6 Completion of the Acquisitions is conditional upon:

(a) the Merger becoming effective in accordance with Swiss law. The Merger will become effective simultaneously with Completion;

(b) the Company or Xstrata South Africa, as the case may be, having received, in terms satisfactory to it, confirmations and/or approvals from the requisite regulatory authorities under the Foreign Acquisitions and Takeovers Act, 1975 (Australia), the South African Competition Act No. 89 of 1998 and the South African Currency and Exchanges Act No. 9 of 1933;

(c) Admission, which will occur simultaneously with Completion; and

(d) the delivery to Glencore International of written consents, in terms satisfactory to the Company, from relevant third parties.

10.7 The Vendors have agreed to give a Tax Covenant (summarised at 10.8 below) and certain warranties and indemnities in relation to Glencore Overseas AG, Duiker Marketing AG and Duiker, including in relation to the truth, accuracy and completeness of the information provided in connection with the due diligence process, share title, corporate authorisations, financial matters, debt position, regulatory matters, the assets of the Group, mineral and mining rights, mining authorisations, environmental compliance (including rehabilitation), real property, labour, superannuation, intellectual property and information technology, material contracts (including in relation to joint venture agreements), litigation, directors and employees and insolvency. Liability for all claims concerning breaches of warranty or under the Tax Covenant are limited to: (i) US$995,452,000 in respect of the Enex Group; (ii) US$150,000,000 in respect of Duiker Marketing AG; and (iii) US$922,458,000 in respect of Duiker and its subsidiaries and subsidiary undertakings. Claims for breach of any warranty must be brought on or before the expiry of 18 months from the date of Completion. Any claims under the Tax Covenant must be brought on or before the end of the two month period following the expiry of the statutory limitation (in the relevant jurisdiction) for any liability to the relevant tax charge giving rise to the claim. No claim for breach of warranty or under the Tax Covenant may be brought unless the aggregate liability of the Vendors exceeds US$2.5 million and the Vendors are not liable for any individual claim unless the aggregate amount of the liability in respect of such claim exceeds US$100,000.

10.8 Under the terms of the Tax Covenant, the Vendors have agreed to indemnify the Purchasers, subject to certain exceptions, against any tax liabilities of any company in the Glencore Overseas AG group, the Duiker Group or Duiker Marketing AG arising in respect of any period up to and including the year ended 31 December 2001 which were not provided for in the 31 December 2001 accounts of that company. The Tax Covenant contains provisions relating to the manner in which the Vendor and Purchaser will prepare and agree tax computations and returns, the basis on which certain claims and elections can be made, the conduct of negotiations and disputes with the tax authorities, and certain administrative matters.

10.9 Glencore International has agreed for a period of three years following Completion to cooperate with the Company to give it the opportunity to enter into any transaction which involves the mining of coal or any related processing business which is carried

on in whole or in part within Australia or South Africa in preference to Glencore International or a member of its group. Under the terms of the Acquisition Agreement, the Vendors are also prohibited for a period of 12 months from soliciting offers of employment with any senior executive of the Group.

10.10 The Company may terminate the Acquisition Agreement at any time prior to Completion if any fact, matter or event comes to the notice of the Purchasers which:

(a) constitutes a material breach by any of the Vendors of the Acquisition Agreement and, if capable of rectification, is not rectified within seven days after notification by the Company or prior to Completion, whichever is earlier;

(b) would constitute a breach of any warranty if the warranties were repeated on or at any time before Completion and which has or may have the effect described in (c) below;

(c) affects or is likely to affect in a materially adverse manner the business, financial position or prospects of the Enex Group or the Duiker Group; or

(d) would cause any of the conditions precedent to be incapable of fulfilment in accordance with the terms of the Acquisition Agreement.

10.11 Each party is required to bear its own expenses incurred in connection with the Acquisition Agreement. The Purchasers will bear all stamp duties arising as a result of the Acquisitions (other than the Swiss Securities Turnover Tax, which will be borne equally as between the relevant Purchasers and the relevant Vendors).

10.12 Xstrata AG has unconditionally and irrevocably agreed to guarantee the obligations of Xstrata (Schweiz) AG and Xstrata South Africa and Glencore International has unconditionally and irrevocably agreed to guarantee the obligations of the Duiker Mining Shareholders, under the terms of the Acquisition Agreement.

The Merger Agreement

10.13 The Company and Xstrata AG entered into the Merger Agreement, dated as of 20 February 2002, pursuant to which the entire undertaking of Xstrata AG, including all of its assets, will be transferred to the Company in consideration for which the Company will issue shares to the former shareholders of Xstrata AG in proportion to their respective holdings of shares in Xstrata AG, on the basis of 10 Ordinary Shares for each Xstrata AG Share. In addition, the Company will assume all of Xstrata AG's liabilities. The Merger will become effective upon entry into the Commercial Register of the Canton of Zug, Switzerland, which will take place simultaneously with Completion.

Syndicated Loan Facility Agreement

10.14 On or about 20 March 2002 (but in any event prior to Admission) the Company, certain members of the Group, the underwriters of the syndicated loan and certain other banks entered into a Syndicated Loan Facility Agreement pursuant to which:

(a) the banks will make available to certain members of the Group a five year committed multicurrency revolving credit facility up to the amount of US$1,400,000,000;

(b) the purpose of the Syndicated Loan Facility is to finance the Acquisitions (other than the acquisition of Glencore Overseas AG), refinance existing financial indebtedness of certain members of the Group, finance the working capital requirements and general corporate purposes of certain members of the Group and permitted acquisitions. The existing financial indebtedness of certain members of the Group includes the indebtedness of Xstrata AG under a €600,000,000 credit agreement in connection with the acquisition of Asturiana and the indebtedness of the Enex Group under a US$300,000,000 credit agreement;

(c) borrowings under the Syndicated Loan Facility will be guaranteed by the Company and certain members of the Group;

(d) the borrowings will bear interest at a rate equal to the aggregate of the London inter-bank offered rate plus 1.00 per cent. per annum for approximately six months after the date of the Syndicated Loan Facility Agreement and thereafter on a sliding scale determined by reference to a formula based on earnings; and

(e) the Company will be liable to pay the expenses of the underwriters and certain fees including, but not limited to, a commitment fee on the undrawn portion of the Syndicated Loan Facility at a rate per annum equal to 50% of the relevant margins noted above and payable in US$ quarterly in arrear.

The Syndicated Loan Facility Agreement includes customary covenants and warranties given by the Company and certain members of the Group and events of default.

11. Securities laws

11.1 No action has been taken by the Company or the Underwriters that would permit, other than under the Global Offer, an offer of Ordinary Shares or possession or distribution of this document or any other offering material in any jurisdiction where action for that purpose is required.

11.2 The distribution of this document and the offer of Ordinary Shares in certain jurisdictions may be restricted by law and therefore persons into whose possession this document comes should inform themselves about and observe any such restrictions,

including those in the paragraphs that follow. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

United States of America

11.3 The Ordinary Shares have not been and will not be registered under the Securities Act, and may not be offered or sold within the United States or to, or for the account or benefit of, US persons except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act.

11.4 Until the expiration of the 40-day period referred to in paragraph 9.1(j) above, an offer or sale of the Ordinary Shares within the United States by a dealer that is not participating in the Global Offer may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A or another exemption from, or transaction not subject to, the registration requirements of the Securities Act.

(a) Rule 144A Ordinary Shares

Each purchaser of Ordinary Shares located within the United States by accepting delivery of this document, will be deemed to have represented, agreed and acknowledged that:

(i) it is (A) a Qualified Institutional Buyer within the meaning of Rule 144A, (B) acquiring such Ordinary Shares for its own account or for the account of a Qualified Institutional Buyer and (C) aware, and each beneficial owner of such Ordinary Shares has been advised, that the sale of such Ordinary Shares to it is being made in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A or another exemption from the registration requirements of the Securities Act;

(ii) it understands that such Ordinary Shares have not been and will not be registered under the Securities Act and may not be offered, sold, pledged or otherwise transferred except (A) in accordance with Rule 144A, to a person that it and any person acting on its behalf reasonably believe is a Qualified Institutional Buyer purchasing for its own account or for the account of a Qualified Institutional Buyer, (B) in an offshore transaction in accordance with Rule 903 or Rule 904 of Regulation S or (C) pursuant to an exemption from registration under the Securities Act provided by Rule 144 thereunder (if available), in each case in accordance with any applicable securities laws of any state of the United States. Such purchaser acknowledges that the Ordinary Shares offered and sold in accordance with Rule 144A or another exemption from, or transaction not subject to, the registration requirements of the Securities Act are "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act and that no representation can be made as to the availability of the exemption provided by Rule 144 under the Securities Act for the resale of Ordinary Shares;

(iii) the Company, the Registrar, the Underwriters and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements. If it is acquiring any Ordinary Shares for the account of one or more Qualified Institutional Buyers, it represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgements, representations and agreements on behalf of each such account; and

(iv) the Ordinary Shares will bear a legend to the following effect, unless the Company determines otherwise in compliance with applicable law:

"THE SECURITY EVIDENCED HEREBY HAS NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933 (THE "SECURITIES ACT") OR WITH ANY SECURITIES REGULATORY AUTHORITY OF ANY STATE OR OTHER JURISDICTION OF THE UNITED STATES AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT (A)(1) TO A PERSON WHO THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER, IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A, (2) IN AN OFFSHORE TRANSACTION COMPLYING WITH RULE 903 OR RULE 904 OF REGULATION S UNDER THE SECURITIES ACT OR (3) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT PROVIDED BY RULE 144 THEREUNDER (IF AVAILABLE) AND (B) IN ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES. NO REPRESENTATION CAN BE MADE AS TO THE AVAILABILITY OF THE EXEMPTION PROVIDED BY RULE 144 FOR RESALES OF THE ORDINARY SHARES.

Prospective purchasers are hereby notified that sellers of the Ordinary Shares may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A or another exemption from the registration requirements of the Securities Act.

(b) Regulation S Ordinary Shares

Each purchaser of the Ordinary Shares offered in reliance on Regulation S (the "Regulation S Ordinary Shares") will be deemed to have represented and agreed as follows (terms used in this paragraph that are defined in Rule 144A or Regulation S are used herein as defined therein):

(i) The purchaser (A) is, and the person, if any, for whose account it is acquiring the Regulation S Ordinary Share is, outside the United States and is not a US person and (B) is not an affiliate of the Company or a person acting on behalf of such an affiliate;

(ii) The purchaser is aware that the Regulation S Ordinary Shares have not been and will not be registered under the Securities Act and are being offered outside the United States in reliance on Regulation S; and

(iii) Any offer, sale, pledge or other transfer made other than in compliance with the above-stated restrictions shall not be recognised by the Company in respect of the Regulation S Ordinary Shares.

It is expected that delivery of the Ordinary Shares will be made against payment therefore on or about the date specified above under "The Global Offer and related matters – Dealing Arrangements" in Part III, which will be the third business day following the date of pricing of the Ordinary Shares. Pursuant to Rule 15c6-1 under the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise.

United Kingdom

11.5 Each Underwriter has represented and agreed that (a) it has not offered or sold and will not offer or sell any Ordinary Shares to persons in the United Kingdom prior to Admission except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995 or the FSMA, (b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) received by it in connection with the issue or sale of the Ordinary Shares in circumstances in which section 21(1) of the FSMA does not apply to the Company, and (c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Ordinary Shares in, from or otherwise involving the United Kingdom.

Australia

11.6 This document does not constitute a disclosure document under Part 6D.2 of the Corporations Act 2001 of the Commonwealth of Australia (the "Corporations Act") and will not be lodged with the Australian Securities and Investments Commission. The Ordinary Shares will be offered to persons who receive offers in Australia only to the extent that such offers of shares for issue or sale do not need disclosure to investors under Part 6D.2 of the Corporations Act. Any offer of shares received in Australia is void to the extent that it needs disclosure to investors under the Corporations Act. In particular, offers for the issue or sale of Ordinary Shares will only be made in Australia in reliance on various exemptions from such disclosure to investors provided by section 708 of the Corporations Act. Any offer of shares received in Australia is void to the extent that it needs disclosure to investors under the Corporations Act. Any person to whom Ordinary Shares are issued or sold pursuant to an exemption provided by section 708 of the Corporations Act must not within 12 months after the issue offer those Ordinary Shares for sale in Australia unless that offer is itself made in reliance on an exemption from disclosure provided by that section.

Canada

11.7 **This document is not, and under no circumstances is to be construed as, a prospectus, an advertisement or a public offering of the securities described herein in Canada. No securities commission or similar authority in Canada has reviewed or in any way passed upon this document or the merits of the securities described herein, and any representation to the contrary is an offence.**

The Global Offer is being made in the Provinces of Ontario, Québec and British Columbia (the "Private Placement Provinces") by way of a private placement of Ordinary Shares. The Global Offer in the Private Placement Provinces is being made pursuant to this document through the Underwriters named in this document or through their selling agents who are permitted under applicable law to distribute such securities in Canada.

(a) Representations and Agreements by Purchasers

Confirmations of the acceptance of offers to purchase any Ordinary Shares will be sent to purchasers in the Private Placement Provinces who have not withdrawn their offers to purchase prior to the issuance of such confirmations. Each purchaser of Ordinary Shares in the Private Placement Provinces who receives a purchase confirmation regarding the purchase of Ordinary Shares will, by the purchaser's receipt thereof, be deemed to have represented to the Company and the dealer from which such purchase confirmation is received, that such purchaser and any ultimate purchaser for which such initial purchaser is acting as agent (a) is entitled under applicable provincial securities laws to purchase such Ordinary Shares without the benefit of a prospectus qualified under such securities laws and, in the case of purchasers in provinces other than Ontario, without the services of a dealer registered pursuant to such securities laws, (b) is basing its investment decision solely on this document and not on any other information concerning the Company or the Global Offer, (c) has reviewed the terms referred to below under the heading "Canadian Resale Restrictions", and (d) is in compliance with the following:

(i) where the purchaser is purchasing in Ontario, such purchaser is either a "designated institution" within the meaning of Section 204 of the Regulation to the *Securities Act* (Ontario) purchasing from an International Dealer or is a purchaser purchasing from a fully registered dealer and, in either case, is purchasing the Ordinary Shares with the benefit of the prospectus exemption provided by Section 2.3 of Ontario Securities Commission Rule 45-501 ("Rule 45-501") (that is, such purchaser is purchasing the Ordinary Shares as a principal and is an "accredited investor" within the meaning of Section 1.1 of Rule 45-501);

(ii) where the purchaser is purchasing in Québec, such purchaser is a "sophisticated purchaser" within the meaning of Section 44 of the *Securities Act* (Québec) purchasing the Ordinary Shares as principal, or is a "sophisticated purchaser" within the meaning of Section 45 of the *Securities Act* (Québec) purchasing for the portfolio of a person managed solely by it or is purchasing as principal Ordinary Shares with an aggregate acquisition cost to such purchaser of at least Cdn$150,000 from a registered dealer with an unrestricted practice;

(iii) where the purchaser is purchasing in British Columbia, such purchaser is not an individual and (a) such purchaser is purchasing the Ordinary Shares as principal, and is a financial or government institution as described in, and in accordance with, the registration and prospectus exemptions provided by Sections 45(2)(2) and 74(2)(1) of the *Securities Act* (British Columbia); (b) such purchaser is purchasing the Ordinary Shares as principal and has been designated as an exempt purchaser by an outstanding order of the Executive Director of the British Columbia Securities Commission in accordance with the registration and prospectus exemptions provided by Sections 45(2)(4) and 74(2)(3) of the *Securities Act* (British Columbia); (c) such purchaser is purchasing the Ordinary Shares as principal and the aggregate acquisition cost to such purchaser is not less than Cdn$97,000, in accordance with the registration and prospectus exemptions provided by Sections 45(2)(5) and 74(2)(4) of the *Securities Act* (British Columbia);

(iv) if the purchaser is a company, the purchaser was not established solely for the purpose of acquiring Ordinary Shares in reliance on an exemption from applicable prospectus requirements in the Private Placement Provinces;

(v) such purchaser is either purchasing Ordinary Shares as principal for its own account, or is deemed to be purchasing Ordinary Shares as principal for its own account in accordance with the applicable securities laws of the province in which such purchaser is resident, by virtue of being either (i) a designated trust company; (ii) a designated insurance company; (iii) a portfolio manager; or (iv) another entity similarly deemed by those laws to be purchasing as principal for its own account when purchasing on behalf of other beneficial purchasers;

(vi) such purchaser is purchasing in respect of a trade for which there is an exemption from the registration requirements of applicable Canadian securities laws or which is otherwise in compliance with such laws;

(vii) such purchaser acknowledges and agrees that the offer and sale of Ordinary Shares was made exclusively through this document and was not made through an advertisement of the Ordinary Shares in any printed media of general and regular paid circulation, radio or television or any other form of advertising; and

(viii) such purchaser acknowledges that the Ordinary Shares are being distributed in Canada on a private placement basis only and that any resale of Ordinary Shares must be in accordance with the requirements of applicable securities laws, which will vary depending on the relevant jurisdictions.

(b) Language of Document

Each purchaser of Ordinary Shares in Canada that receives a purchase confirmation hereby agrees that it is such purchaser's express wish that all documents evidencing or relating in any way to the sale of such Ordinary Shares be drafted in the English language only. *Chaque acheteur au Canada des valeurs mobilières recevant un avis de confirmation à l'égard de son acquisition reconnaît que c'est sa volonté expresse que tous les documents faisant foi ou se rapportant de quelque manière à la vente des valeurs mobilières soient rédigés uniquement en anglais.*

(c) Canadian Resale Restrictions

The distribution of the Ordinary Shares in the Private Placement Provinces is being made on a private placement basis. Accordingly, any resale of the Ordinary Shares must be made (i) through an appropriately registered dealer or in accordance with an exemption from the dealer registration requirements of applicable provincial securities laws and (ii) in accordance with, or pursuant to an exemption from, the prospectus requirements of such laws. Such resale restrictions may not apply to resales made outside of Canada, depending on the circumstances. Purchasers of Ordinary Shares are advised to seek legal advice prior to any resale of Ordinary Shares.

(d) Statutory Rights of Action (Ontario Purchasers)

Section 4.2 of Rule 45-501 provides that when an offering memorandum, such as this document, is delivered to an investor to whom securities are distributed in reliance upon the "accredited investor" prospectus exemption in Section 2.3 of Rule 45-501, the right of action referred to in Section 130.1 of the *Securities Act* (Ontario) ("Section 130.1") is applicable. Section 130.1 provides purchasers who purchase securities offered by an offering memorandum with a statutory right of action against the issuer of securities and any selling securityholder for rescission or damages in the event that the offering memorandum and any amendment to it contains a "misrepresentation". "Misrepresentation" means an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make any statement not misleading or false in the light of the circumstances in which it was made.

Where this document, together with any amendment to it, is delivered to a prospective purchaser of Ordinary Shares in connection with a trade made in reliance on Section 2.3 of Rule 45-501, and this document contains a misrepresentation which

was a misrepresentation at the time of purchase of the Ordinary Shares, the purchaser will have a statutory right of action against the Company for damages or, while still the owner of the Ordinary Shares, for rescission, in which case, if the purchaser elects to exercise the right of rescission, the purchaser will have no right of action for damages, provided that the right of action for rescission will be exercisable by the purchaser only if the purchaser gives notice to the defendant, not more than 180 days after the date of the transaction that gave rise to the cause of action, that the purchaser is exercising this right; or, in the case of any action, other than an action for rescission, the earlier of: (i) 180 days after the plaintiff first had knowledge of the facts giving rise to the cause of action, or (ii) three years after the date of the transaction that gave rise to the cause of action.

The defendant shall not be liable for a misrepresentation if it proves that the purchaser purchased the Ordinary Shares with knowledge of the misrepresentation.

In an action for damages, the defendant shall not be liable for all or any portion of the damages that the defendant proves do not represent the depreciation in value of the Ordinary Shares as a result of the misrepresentation relied upon.

In no case shall the amount recoverable for the misrepresentation exceed the price at which the Ordinary Shares were offered.

The foregoing statutory right of action for rescission or damages is in addition to and without derogation from any other right the purchaser may have at law.

This summary is subject to the express provisions of the *Securities Act* (Ontario) and the regulations and rules made under it, and you should refer to the complete text of those provisions.

(e) Enforcement of Legal Rights

All of the directors and officers (or their equivalents) of the Group, as well as any experts named herein may be located outside of Canada and, as a result, it may not be possible for purchasers to effect service of process within Canada upon the Group or such persons. All or a substantial portion of the assets of the Group and such persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against the Group or such persons in Canada or to enforce a judgment obtained in Canadian courts against the Group or such persons outside of Canada.

(f) Canadian Tax Considerations and Eligibility for Investment

This document does not address the Canadian tax consequences of ownership of the Ordinary Shares. Prospective purchasers of Ordinary Shares should consult their own tax advisers with respect to the Canadian and other tax considerations applicable to their individual circumstances and with respect to the eligibility of the Ordinary Shares for investment by purchasers under relevant Canadian legislation.

Japan

11.8 The Ordinary Shares have not been and will not be registered under the Securities and Exchange Law of Japan (Law No. 25 of 1948 as amended), and may not be offered or sold, directly or indirectly, in Japan or to a resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Securities and Exchange Law and other relevant laws and regulations of Japan.

South Africa

11.9 Residents of South Africa are subject to Exchange Control Regulations and are advised to seek independent advice regarding any permissions that may be required of the Exchange Control Authorities of the Reserve Bank of South Africa with regard to implementation of the transactions detailed herein.

To the extent that Ordinary Shares are offered for subscription or sale in South Africa, such offer is being effected in terms of section 144 of the South African Companies Act and does not constitute an offer to the public within the meaning of the South African Companies Act.

The Netherlands

11.10 The Ordinary Shares may not be offered, transferred, sold or delivered to any individual or legal entity other than to persons who trade or invest in securities in the conduct of their profession or trade (which includes banks, securities intermediaries (including dealers and brokers), insurance companies, pension funds, other institutional investors and commercial enterprises which as an ancillary activity regularly invest in securities).

General

11.11 No action has been or will be taken in any jurisdiction that would permit a public offering of the Ordinary Shares, or possession or distribution of this document or any other offering material, in any country or jurisdiction where action for that purpose is required. Accordingly, the Ordinary Shares may not be offered or sold, directly or indirectly, and neither this document nor any other offering material or advertisements in connection with the Ordinary Shares may be distributed or published in or from any country or jurisdiction except under circumstances that will result in compliance with any applicable rules and regulations of any such country or jurisdiction.

12. Summary of differences between GAAP

Summary of differences between UK GAAP and US GAAP

12.1 The consolidated financial information of Xstrata, the Xstrata AG Group, the Enex Group and the Duiker Group are presented in the Accountants' Reports in Part VI in accordance with UK GAAP which differ from US GAAP. The principal relevant differences between US GAAP and UK GAAP that the Directors believe would impact profit or shareholders' equity relate to the following:

(a) Associated entities

Investments in entities over which the Xstrata AG Group, the Enex Group and the Duiker Group do not exercise control (associates and joint ventures) are accounted for by the equity method.

UK GAAP requires the consolidated financial statements to show separately the Group proportion of operating profit or loss, exceptional items, inventory holding gains or losses, interest expense and taxation of associated undertakings and joint ventures. In addition the turnover of joint ventures should be disclosed. For US GAAP the after tax profits or losses (i.e. operating results after exceptional items, inventory holding gains or losses, interest expense and taxation) would be included in the income statement as a single line item.

UK GAAP requires the Xstrata AG Group's, the Enex Group's and the Duiker Group's share of the gross assets and gross liabilities of joint ventures to be shown on the face of the balance sheet whereas under US GAAP the net investment would be included as a single line item.

(b) Revenue recognition

The application of Staff Accounting Bulletin No. 101 (SAB 101) Revenue Recognition in Financial Statements, which summarises certain of the SEC staff's views in applying US GAAP to revenue recognition in financial statements has the result that, in some cases, sales recorded as revenue under UK GAAP would be deferred and not recognised as revenue under US GAAP until a future accounting period. Under UK GAAP certain sales contracts are recognised as revenue when the goods are delivered to the ship for export to the customer but would not qualify for recognition under US GAAP until they have reached the destination specified by the customer in the sales contract and title has passed.

(c) Impairment

Both UK GAAP and US GAAP require that long-lived assets and certain identifiable intangibles to be held and used by an entity be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. US GAAP requires, in performing the review for recoverability, the entity to estimate the future cash flows expected to result from the use of the asset and its eventual disposition. If the sum of the expected future cash flows (undiscounted and without interest charges) is less than the carrying amount of the asset, an impairment loss is recognised. Otherwise, no impairment loss is recognised. Measurement of an impairment loss for long-lived assets and identifiable intangibles that an entity expects to hold and use is based on the fair value of the assets.

An impairment review is undertaken on "income generating units" for UK GAAP purposes, income generating units may be defined as divisions or countries of operation in accordance with the relevant Statement of Recommended Practice. To the extent that the carrying amount exceeds the recoverable amount, that is the higher of net realisable value and value in use (fair value) the fixed asset is written down to its recoverable amount.

(d) Provisions

UK GAAP requires provisions for decommissioning, environmental liabilities and onerous contracts to be determined on a discounted basis if the effect of the time value of money is material. Under US GAAP (i) environmental liabilities would be discounted only where the timing and amounts of payments are fixed and reliably determinable and (ii) provisions for decommissioning are provided on a unit-of-production basis over the lives of the mines.

(e) Deferred taxation

Under UK GAAP, deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date, with the following exceptions:

- where fixed assets have been revalued, provision is made for deferred tax only to the extent that, at the balance sheet date, there is a binding agreement to dispose of the assets concerned. However, no provision is made where, on the basis of all available evidence at the balance sheet date, it is more likely than not that the taxable gain will be rolled over into replacement assets and charged to tax only where the replacement assets are sold;
- provision is made for deferred tax that would arise on remittance of the retained earnings of overseas subsidiaries only to the extent that, at the balance sheet date, dividends have been accrued as receivable; and
- deferred tax assets are recognised only to the extent that the directors consider that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Under US GAAP, full provision for deferred tax is required for temporary differences between the financial reporting basis and the tax basis of the Xstrata AG Group's, the Enex Group's and the Duiker Group's assets and liabilities at enacted tax rates.

(f) *Ordinary shares held for future awards to employees*

Under UK GAAP, company shares held by the Xstrata AG Group, the Enex Group and the Duiker Group to hedge future requirements of share option schemes are recorded in the balance sheet as fixed assets – investments. Under US GAAP, such shares would be recorded in the balance sheet as a reduction of shareholders' interest.

(g) *Dividends*

Under UK GAAP, dividends are recorded in the year in respect of which they are announced or declared by the board of directors to the shareholders. Under US GAAP, dividends are recorded in the period in which dividends are declared.

(h) *Exchange differences*

The Xstrata AG Group, the Enex Group and the Duiker Group are party to derivative contracts in respect of some of their future transactions in order to hedge their exposure to fluctuations between certain currencies. Under UK GAAP, these contracts are accounted for as hedges: gains and losses are deferred and subsequently recognised when the hedged transaction occurs. US GAAP, effective for Xstrata from 1 January 2001, requires all derivative instruments (including those embedded in other contracts) to be recognised on the balance sheet at their fair values. Changes in fair values are either recognised periodically in income or in shareholders' equity as a component of other comprehensive income depending on whether the derivative qualifies for hedge accounting and, if so, whether it qualifies as a fair value hedge or a cash flow hedge. Significant documentation is required to enable derivatives to qualify for hedge accounting. Changes in fair value of derivatives accounted for as fair value hedges are recorded in income along with the corresponding portions of the changes in the fair value of the hedged items, to the extent that they are effective as hedges. Changes in fair value of derivatives accounted for as cash flow hedges, to the extent they are effective as hedges, are recorded in other comprehensive income, net of income taxes. Changes in fair value of derivatives used as hedges of net investments in foreign operations are reported in other comprehensive income net of income taxes and reflected as part of the cumulative translation adjustment. Changes in fair value of derivatives not qualifying as hedges are reported in net income.

(i) *Start-up costs*

US GAAP requires that the costs of start-up activities are expensed as incurred. Under UK GAAP, certain start-up losses during the commissioning period of a new installation qualify for capitalisation and are amortised over the economic lives of the relevant assets.

(j) *Unrealised holding gains and losses*

UK GAAP requires current asset investments to be valued at the lower of cost and net realisable value with any losses recorded in the profit and loss account. Under US GAAP, FAS 115, unrealised holding gains and losses on investments classified as "available for sale" are excluded from earnings and reported instead within a separate component of shareholders' funds until realised.

(k) *Mining expenditure*

Under UK GAAP, mine development expenditure is deferred if it is probable that such costs will be recovered from future cash flows from the exploitation or sale of the mine asset. Exploration and evaluation expenditure may only be capitalised if there is sufficient certainty that the expenditure will be recoverable, either from disposal of, or successful exploitation of the mine to which the expenditure relates. Such expenditure is capitalised until the commencement of production, when it is depreciated over the life of the mine. When an area is abandoned or becomes non-viable, all deferred expenditure is written off.

Interest on borrowings used to fund the expenditure may be capitalised as part of the cost of the asset, provided the borrowing relates directly to the asset.

Under US GAAP, exploration and evaluation expenditure is generally expensed as incurred.

US GAAP require interest to be capitalised but does not require the borrowings to be directly attributable to the asset.

(l) *Cash flow*

Under UK GAAP, cash flows are presented for (i) operating activities; (ii) dividends from joint ventures; (iii) dividends from associated undertakings; (iv) servicing of finance and returns on investments; (v) taxation; (vi) capital expenditure and financial investment; (vii) acquisitions and disposals; (viii) dividends; (ix) financing; and (x) management of liquid resources. US GAAP only requires presentation of cash flows from operating, investing and financing activities.

Cash flows under UK GAAP in respect of dividends from joint ventures and associated undertakings, taxation and servicing of finance and returns on investments are included within operating activities under US GAAP. Interest paid includes payments in respect of capitalised interest, which under US GAAP is included in capital expenditure under investing activities. Cash flows under UK GAAP in respect of capital expenditure and acquisitions and disposals are included in investing activities under US GAAP. Dividends paid are included within financing activities. Under US GAAP short-term investments with original maturities of three months or less are classified as cash equivalents and aggregated with cash in the cash flow statement. Cash flows in respect of short-term investments with original maturities exceeding three months are included in operating activities. Under UK GAAP, only those short-term deposits which are repayable on demand or can be withdrawn at any time without notice and without penalty or where a maturity or period of notice of no more than 24 hours or one working day has been agreed, are

classified as cash equivalents. Short-term deposits not fulfilling these criteria are classified as liquid resources and disclosed separately within the cash flow statement.

Summary of differences between UK GAAP and IAS

12.2 The consolidated financial information of Xstrata, the Xstrata AG Group, the Enex Group and the Duiker Group are presented in the Accountants' Reports in accordance with UK GAAP which differs in certain respects from IAS. The principal relevant differences between IAS and UK GAAP that the Directors believe would impact profit or shareholders' equity, relate to the following:

(a) Associated entities

Investments in entities over which the Xstrata AG Group, the Enex Group and the Duiker Group do not exercise control (associates and joint ventures) are accounted for by the equity method by the Xstrata AG Group, the Enex Group and the Duiker Group.

UK GAAP requires the consolidated financial statements to show separately the Xstrata AG Group, the Enex Group and the Duiker Group proportion of operating profit or loss, exceptional items, inventory holding gains or losses, interest expense and taxation of associated undertakings and joint ventures. In addition the turnover of joint ventures should be disclosed.

UK GAAP also requires the Xstrata AG Group's, the Enex Group's and the Duiker Group's share of the gross assets and gross liabilities of joint ventures to be shown on the face of the balance sheet. Under IAS the investments would be proportionally consolidated on a line by line basis through both the balance sheet and profit and loss statement, and not be separately identifiable in any primary statement.

(b) Deferred taxation

Under UK GAAP deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date, with the following exceptions:

- where fixed assets have been revalued, provision is made for deferred tax only to the extent that, at the balance sheet date, there is a binding agreement to dispose of the assets concerned. However, no provision is made where, on the basis of all available evidence at the balance sheet date, it is more likely than not that the taxable gain will be rolled over into replacement assets and charged to tax only where the replacement assets are sold;
- provision is made for deferred tax that would arise on remittance of the retained earnings of overseas subsidiaries only to the extent that, at the balance sheet date, dividends have been accrued as receivable; and
- deferred tax assets are recognised only to the extent that the directors consider that it is more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Under IAS, deferred taxation would be provided for temporary differences between the financial reporting basis and the tax basis of the Xstrata AG Group's, the Enex Group's and the Duiker Group's assets and liabilities at enacted tax rates.

(c) Ordinary shares held for future awards to employees

Under UK GAAP, company shares held by the Xstrata AG Group, the Enex Group and the Duiker Group to hedge future requirements of share option schemes are recorded in the balance sheet as fixed assets – investments. Under IAS, such shares are recorded in the balance sheet as a reduction of shareholders' interest.

(d) Cash flow

Under UK GAAP, cash flows are presented for (i) operating activities; (ii) dividends from joint ventures; (iii) dividends from associated undertakings; (iv) servicing of finance and returns on investments; (v) taxation; (vi) capital expenditure and financial investment; (vii) acquisitions and disposals; (viii) dividends; (ix) financing; and (x) management of liquid resources. IAS only require presentation of cash flows from operating, investing and financing activities.

Under IAS, cash flows in respect of taxation and interest form part of the operating activities, whereas UK GAAP requires these cash flows to be shown separately on the face of the cash flow.

IAS defines cash and cash equivalents, which includes cash and deposits with less than three months to maturity. Under UK GAAP, only those short-term deposits which are repayable on demand or can be withdrawn at any time without notice and without penalty or where a maturity or period of notice of no more than 24 hours or one working day has been agreed, are classified as cash equivalents. Short-term deposits not fulfilling these criteria are classified as liquid resources and disclosed separately within the cash flow statement.

13. Principal establishments

On Admission the principal establishments occupied by the Group, being those which account for more than 10% of net turnover or production, will be as follows:

Name	Tenure	Approximate area (square feet)
Asturias Industrial Zone One, San Juan de Nieva, "Castrillon", Spain	Freehold	6.0 million

14. Principal subsidiary and associated undertakings

Immediately following the Merger becoming effective, the Company will be the holding company of the Group. The following table shows the principal subsidiaries of the Company once the Merger becomes effective, being those that the Company considers are likely to have a significant effect on the assessment of the Company's assets and liabilities, financial position or profits or losses. Other than those marked below with a *, each of these subsidiaries is included in the consolidated accounts of the Group:

Name and address	Country of incorporation and registered number	Nature of business	Interest in share capital
Xstrata (Schweiz) AG* Bahnhofstrasse 2 P.O.Box 102 6301 Zug Switzerland	Switzerland – CH-170.3.025.302-8	Holding company	100%
Glencore Overseas AG* Baarermattstrasse 3 6340 Baar Switzerland	Switzerland – CH-170.3.017.081-8	Holding company	100%
Duiker Marketing AG Zugerstrasse 15 6330 Cham Switzerland	Switzerland – CH-170.3.024.285-1	Trading	100%
Xstrata Capital Corporation A.V.V. c/o IMC International Management & Trust Company N.V. 62 Lloyd G. Smith Boulevard P.O.Box 1216 Oranjestad/Aruba	Aruba Chamber of Commerce and Industry serial no. 13174.0	Marketing	100%
Duiker Mining (Proprietary) Limited 19 Girton Road Parktown Johannesburg South Africa	South Africa – 1946/022288/07	Coal	100%
Xstrata South Africa (Proprietary) Limited 44 Vanadium Street Rustenburg South Africa	South Africa – 1997/017998/07	Ferroalloys	100%
Xstrata Zinc B.V. De Boelelaan Officia 1 1083 HJ Amsterdam The Netherlands	The Netherlands – 34143409	Holding company	100%
Asturiana de Zinc, SL. Asturias Industrial Zone One San Juan de Nieva "Castrillon" Spain	Spain – B 82689753	Zinc	93.18%
Enex Coal Pty Limited Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 082 271 930	Coal	100%
Enex Resources Ltd. Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 082 271 912	Coal	100%

Name and address	Country of incorporation and registered number	Nature of business	Interest in share capital
Oceanic Coal Australia Ltd. Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 003 856 782	Coal	100%
Hunter Valley Coal Corporation Pty Limited ("HVCC") Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 003 827 361	Coal	100%
ENEX Oakbridge Pty Ltd. Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 097 590 479	Coal	100%
Jonsha Pty Limited Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 095 433 935	Coal	100%
Oakbridge Pty Ltd. Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 000 230 419	Coal	66.5%
Saxonvale Coal Pty Limited Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 003 526 467	Coal	100%
The Newcastle Wallsend Coal Co Pty Ltd Level 41 Gateway 1 Macquarie Place Sydney NSW Australia	Australia – ACN 000 245 901	Coal	100%

15. UK Taxation

The following paragraphs, which are intended as a general guide only, are based on current UK tax legislation and Inland Revenue practice. They may not apply to certain categories of shareholders such as dealers. The statements are a general guide, and should be treated with appropriate caution. If you are in any doubt as to your taxation position or if you are subject to tax in any jurisdiction other than the UK, you should consult an appropriate professional adviser immediately.

Prospective investors in Ordinary Shares should note that this paragraph 15 deals only with UK taxation. Due to the status of the Company as a resident of Switzerland, certain parts of paragraph 16 below ("Swiss Taxation") are potentially relevant to all holders of Ordinary Shares, regardless of the jurisdiction in which any such holder is resident for tax purposes. Prospective investors resident in the UK are referred in particular to paragraphs 16.1, 16.6 and 16.7 for information relating to Swiss withholding tax which will be deducted from dividends paid, and other distributions made by the Company. Investors are also referred to paragraph 16.5 for information on Swiss securities transfer tax which may arise in certain circumstances.

The summary set forth below is intended as a general guide and does not purport to constitute a comprehensive analysis of the tax consequences under UK law of the acquisition, ownership and sale of the Ordinary Shares by certain classes of investors. It is not intended to be, nor should it be considered, legal or tax advice.

The taxation summaries apply only to shareholders who are the beneficial owners of the Ordinary Shares and hold such Ordinary Shares for investment purposes, and not to dealers in securities.

Prospective investors should consult their own professional advisers on the tax consequences of the acquisition, ownership and sale of the Ordinary Shares.

General

15.1 The Swiss tax authorities have confirmed that, on the assumption that the affairs of the Company are conducted as the Directors intend, they will regard the Company as a resident of Switzerland for the purposes of Swiss taxation law and application of the

Switzerland/UK Double Taxation convention. The UK Inland Revenue has indicated that, based on the proposed location and structure of management as described to it by the Directors, and on the assumption that the affairs of the Company are conducted as the Directors intend and on the basis of the Swiss ruling noted above, it will not regard the Company as resident in the UK for purposes of UK taxation law. The Directors intend to conduct the Company's affairs as described to the Inland Revenue. Accordingly, assuming the affairs are so conducted, the Company should be treated as resident in Switzerland and not in the UK for tax purposes. This position will, however, be reviewed from time to time and it is possible that the Company could in the future become resident for the purposes of taxation in the UK or elsewhere.

This section is written on the basis that the Company is and remains resident in Switzerland and will therefore be subject to the Swiss tax regime and not (save in respect of UK source income) the UK tax regime. Dividends paid by the Company will, on this basis, be regarded as Swiss dividends rather than UK dividends. Since the Company is incorporated in England and Wales, however, the UK stamp duty and stamp duty reserve tax regimes will be relevant to transfers of Ordinary Shares.

All potential investors (wherever resident) are referred to the sections below headed "UK Stamp Duty and Stamp Duty Reserve Tax (SDRT)" and "United Kingdom inheritance tax".

The following is intended only as a general guide and is not intended to be, nor should it be considered to be, legal or tax advice to any particular UK holder. Persons who are in any doubt about their tax position should consult their own professional advisers.

UK taxation of income and gains

15.2 The comments below are of a general nature and are based on current UK law and Inland Revenue practice at the date of this document. Except where indicated, the summary in 15.3 and 15.4 only covers the principal UK tax consequences of holding Ordinary Shares for holders of shares (a) who are resident in the UK for tax purposes (although it should be noted that special rules, which are not covered, apply to such holders of Ordinary Shares who are not domiciled in the UK); (b) who are not resident in Switzerland; and (c) who do not have a permanent establishment in Switzerland with which the holding of Ordinary Shares is connected ("UK holders"). In addition, the summary (a) only addresses the tax consequences for UK holders who hold the Ordinary Shares as capital assets, and does not address the tax consequences which may be relevant to certain other categories of UK holders, for example, dealers in securities; and (b) assumes that the UK holder is not a company which either directly or indirectly controls 10% or more of the voting power of the Company.

Taxation of dividends

15.3 A UK holder, or a holder of Ordinary Shares who is carrying on a trade, profession or vocation in the UK through a branch or agency in connection with which the Ordinary Shares are held, will generally, depending upon the holder's particular circumstances, be subject to UK income tax or corporation tax as the case may be, on the gross amount of any dividends paid by the Company before deduction of any Swiss withholding tax. Paragraphs 16.1, 16.6 and 16.7 below contain information on the Swiss withholding tax which will be deducted from dividends paid, and other distributions made, by the Company, and the procedure under which a UK resident shareholder may claim a refund of part of that withholding tax. A credit for Swiss withholding tax would generally be given against any UK tax liability in respect of the dividends. For a UK individual who is liable to UK income tax, the dividends will be taxable at the Schedule F ordinary rate (10% in 2001-2002) and/or (depending on the amount of the holder's overall taxable income) the Schedule F upper rate (32.5% in 2001-2002).

Taxation of capital gains

15.4 A disposal or deemed disposal of shares by a UK holder or, in certain circumstances by a holder who is carrying on a trade, profession or vocation in the UK through a branch or agency in connection with which the shares are held, may give rise to a chargeable gain or an allowable loss for the purposes of UK taxation of capital gains. A shareholder who is an individual and who is temporarily non-UK resident may, in certain circumstances, be subject to tax in respect of gains realised whilst he or she is not resident in the UK.

UK Stamp Duty and Stamp Duty Reserve Tax (SDRT)

15.5 A transfer on sale of Ordinary Shares will be liable to ad valorem UK stamp duty, generally at the rate of 0.5% (rounded up to the nearest £5) of the consideration paid. An agreement to transfer Ordinary Shares will normally give rise to a charge to SDRT at the rate of 0.5% of the amount or value of the consideration for the Ordinary Shares. The liability to SDRT will arise on the date the contract is made (or, in the case of a conditional agreement, on the date on which such condition is satisfied) although the liability will generally be cancelled, and any SDRT already paid repaid, generally with interest, if an instrument of transfer is executed in pursuance of the agreement and duly stamped within six years of the date on which the liability arises.

Under the CREST system for paperless share transfers, no stamp duty or SDRT will arise on a transfer of shares into the system, unless the transfer into CREST is itself for consideration in money or money's worth, in which case a liability to SDRT will arise, usually at the rate of 0.5% of the amount or value of consideration given. Transfers of shares within CREST are generally liable to SDRT (at a rate of 0.5% of the consideration paid) rather than stamp duty, and SDRT on relevant transactions settled within the system or reported through it for regulatory purposes will be collected and accounted for to the Inland Revenue by CRESTCo Limited.

Where Ordinary Shares are issued or transferred (a) to, or to a nominee or agent for, a person whose business is or includes the provision of clearance services or (b) to, or to a nominee or agent for, a person whose business is or includes issuing depositary

receipts, UK stamp duty or SDRT will be payable. The UK stamp duty and/or SDRT is generally payable at the rate of 1.5% (rounded up to the nearest £5 in the case of stamp duty) of the consideration payable, or in certain circumstances, the value of the Ordinary Shares. Clearance services may opt, provided certain conditions are satisfied, for the normal rate of UK stamp duty or SDRT (0.5%) to apply to issues or transfers of shares into, and to transactions within, such services instead of the higher rate applying to an issue or a transfer of shares into the clearance service.

The UK stamp duty and/or SDRT charges summarised above are in addition to any Swiss securities transfer tax which may arise in the circumstances described at 16.5 below.

United Kingdom inheritance tax

15.6 The Ordinary Shares will be assets situated in the UK for the purposes of UK inheritance tax. A gift of such assets by, or the death of, an individual holder of such assets may (subject to certain exemptions and reliefs) give rise to a liability to UK inheritance tax even if the holder is neither domiciled in the UK nor deemed to be domiciled there under certain rules relating to long residence or previous domicile. For inheritance tax purposes, a transfer of assets at less than full market value may be treated as a gift and particular rules apply to gifts where the donor reserves or retains some benefit.

Special rules also apply to close companies and to trustees of settlements who hold Ordinary Shares bringing them within the charge to inheritance tax. Shareholders should consult an appropriate professional adviser if they make a gift of any kind or intend to hold any Ordinary Shares through trust arrangements.

UK-US estate tax treaty

15.7 An individual who is domiciled in the US for purposes of the UK-USA (Inheritance) Tax Treaty concluded on 19 October 1978 (the "UK-US Estate Tax Treaty") and who is not a national of the UK for the purposes of the UK-US Estate Tax Treaty will generally not be subject to UK inheritance tax in respect of the Ordinary Shares on the individual's death or on a gift of the Ordinary Shares during the individual's lifetime provided that any applicable US federal gift or estate tax liability is paid, unless the Ordinary Shares are part of the business property of a permanent establishment in the UK of an enterprise or pertain to a fixed base in the UK of an individual used for the performance of independent personal services. Where the Ordinary Shares have been placed in trust by a settlor who, at the time of settlement, was domiciled in the US for the purposes of the UK-US Estate Tax Treaty and was not a national of the UK for the purposes of the UK-US Estate Tax Treaty, the Ordinary Shares will generally not be subject to UK inheritance tax (provided that the Ordinary Shares are not part of the business property of a permanent establishment in the UK and do not pertain to a fixed base in the UK as more fully summarised above). In the exceptional case where the Ordinary Shares are subject both to UK inheritance tax and to US federal gift or estate tax, the UK-US Estate Tax Treaty generally provides for the tax paid in the UK to be credited against tax paid in the US and for the tax paid in the US to be credited against tax payable in the UK based on priority rules set out in the UK-US Estate Tax Treaty.

UK-Swiss Estate Tax Treaty

15.8 The United Kingdom-Switzerland (Inheritance and Estates) Tax Treaty concluded on 17 December 1993 (the "UK-Swiss Estate Tax Treaty") does not exclude shares issued by a UK incorporated company from the charge to UK inheritance tax even where an individual holder of such shares is domiciled solely in Switzerland for the purposes of the UK-Swiss Estate Tax Treaty. Accordingly, UK inheritance tax may be payable in respect of a gift of the Ordinary Shares by, or the death of, an individual holder domiciled in Switzerland for the purposes of the UK-Swiss Estate Tax Treaty.

Where an individual holder of the Ordinary Shares is domiciled in both the UK and Switzerland for the purposes of the UK-Swiss Estate Tax Treaty, the Ordinary Shares will be subject to UK inheritance tax only.

In a case where the Ordinary Shares are subject to both UK inheritance tax and Swiss cantonal and communal taxes on estates and inheritances, the UK-Swiss Estate Tax Treaty provides for an amount equal to such taxes paid in Switzerland to be credited against tax payable in the UK by reference to the same property in connection with the same event.

16. Swiss Taxation

Prospective investors in Ordinary Shares should note that this paragraph 16 deals only with Swiss taxation. As the Company is incorporated in England and Wales, sales and transfers of Ordinary Shares will, regardless of the tax residence of the transferor or transferee, the place of execution of any transfer documentation, and the exchange on which the sale occurs, be subject to UK stamp duty or stamp duty reserve tax (as summarised at 15.5 above) in addition to any applicable Swiss securities issue and transfer tax (summarised at 16.5 below).

Further, a registered holding of Ordinary Shares will have a UK situs for UK inheritance tax purposes. Therefore, a gift of Ordinary Shares, or a transfer of Ordinary Shares on the death of the holder, may attract a liability to UK inheritance tax even where the transferring shareholder is domiciled solely in Switzerland. Prospective investors domiciled in Switzerland are referred to paragraphs 15.6 and 15.8 for further information.

Withholding Tax on Dividends and other Distributions

16.1 Dividends paid and similar cash or in kind distributions made by the Company to a holder of Ordinary Shares (including dividends on liquidation and stock dividends) are subject to a Swiss federal withholding tax (the "Withholding Tax") at the rate of 35%. The Withholding Tax must be withheld by the Company from the gross distribution and paid to the Swiss Federal Tax Administration.

The Withholding Tax withheld is refundable in full to – or as the case may be fully creditable against the income tax liability of – a Swiss resident recipient of a distribution, if he is the beneficial owner of the Ordinary Shares at the time of the payment and duly reports the gross distribution received on his personal tax return.

A recipient of a distribution of the Company who is not a resident of Switzerland for tax purposes and does not hold the Ordinary Shares in connection with the conduct of a trade or business in Switzerland through a permanent establishment or a fixed place of business (a "non-resident holder") and qualifies as a resident of a country which maintains a bilateral treaty for the avoidance of double taxation with Switzerland may be entitled to a full or partial refund of the Withholding Tax under the provisions of the applicable treaty. Non-resident holders should be aware that the procedures for claiming treaty refunds (and the time frame required for obtaining a refund) may differ from country to country. Non-resident holders should consult their own tax advisers regarding the procedures for claiming any refund of the Withholding Tax.

Income Tax on Distributions

16.2 A Swiss resident recipient of dividends and similar distributions (including dividends on liquidation and stock dividends) of the Company generally is required to include such amounts in his personal income tax return. A Swiss corporate entity that owns at least 20% of the capital of the Company or Ordinary Shares with a market value of at least CHF2 million may qualify for the participation exemption. The dividends received which qualify for the participation exemption, after certain expense allocation as defined by the applicable legislation are in essence tax exempt.

A non-resident holder is not liable for any Swiss federal, cantonal or municipal income taxes with respect to dividends or other distributions paid on the Ordinary Shares merely as a result of holding the Shares other than the Withholding Tax to be withheld by the Company from such dividends or other distributions.

Capital Gains on Disposals of Shares

16.3 A Swiss resident who holds Shares as part of his private property is generally not subject to any Swiss federal, cantonal or municipal income taxation on gains realised upon the sale or other disposal of Ordinary Shares. Private gains realised upon a repurchase of Ordinary Shares by the Company may, however, be re-characterised as taxable income if certain conditions are met. Book gains realised on Ordinary Shares held as a business asset of a Swiss resident are included in the taxable income of such person.

Capital gains realised by a Swiss corporation owning at least 20% of the capital may be exempt under the participation exemption subject to conditions. Any such corporation should take its own professional advice on its tax position in respect of its holding of Ordinary Shares.

A non-resident holder of Ordinary Shares is generally not subject to any Swiss federal, cantonal or municipal taxation on gains realised on a sale or other disposal of Ordinary Shares unless the Ordinary Shares so disposed of can be attributed to a permanent establishment or fixed place of business maintained by such person within Switzerland during the relevant tax year.

Wealth and Capital Taxes

16.4 Holders of Ordinary Shares resident in Switzerland or otherwise subject to Swiss taxation (individuals or legal entities) are generally subject to annual wealth or annual capital taxes on this shareholding.

Securities Issue and Transfer Tax

16.5 The issue of Ordinary Shares by a Swiss legal entity is generally subject to a 1.0% one-time capital duty (issuance stamp tax). In the case at hand, the shares will be issued by a UK legal entity being managed and controlled in Switzerland. Accordingly, at least for the initial capital increase, it is possible that such increase should escape the capital duty. Any subsequent sale of Shares is subject to the Swiss security transfer tax, currently 0.3%, if such sale or transfer occurs through or with a Swiss bank or another Swiss securities dealer, as defined in the Swiss Federal Stamp Duty Law. In addition to this stamp duty, the sale of shares through or by a member of SWX may be subject to a stock exchange levy of 0.02%. The Swiss securities transfer tax charges summarised above are in addition to the UK stamp duty and/or SDRT which will arise on sales or transfers of Ordinary Shares regardless of the tax residence of the transferor or transferee, the place of execution of any transfer documentation, or the exchange on which the sale occurs. For further information on those UK charges, please see 15.5 above.

Reclaim procedure for UK residents

(a) Procedure

16.6 Three copies of the Form 86 (the "Form") duly completed and signed, must be sent to the Inspector of Taxes in the United Kingdom to whom the claimant makes his income tax return (or to the Inspector of Taxes for the district in which the claimant resides, if he has not made such a return).

The Form may be filed immediately after the due date of the income, but not later than 31 December of the third year following the calendar year in which the income became due.

Rights to repayment arising in one calendar year must be claimed in a single claim.

The claim must be accompanied by evidence of deduction of Swiss tax withheld at source. In general, a certificate of deduction, signed bank voucher or credit slip will satisfy this requirement. However, the Swiss government reserves the right to request further evidence and information.

The claim Form may be filed by a representative on behalf of the beneficial owner, provided that the representative is formally authorised by a power of attorney (which must be attached to the Form).

Two copies of the Forms will be sent by H.M. Inspector of Taxes to the Federal Tax Administration of Switzerland, CH-3003 Berne.

(b) Rates

16.7 UK residents owning shares of a Swiss corporation (other than a corporation which controls at least 25% of the voting power in the Company) may reclaim four sevenths of the 35% Swiss withholding tax, leaving a net Swiss tax cost of 15%.

17. US Taxation

17.1 The following discussion is a summary based on present law of certain US federal income tax considerations relevant to the purchase, ownership and disposition of Ordinary Shares. The discussion addresses only US Holders that will purchase Ordinary Shares in the Global Offer, hold Ordinary Shares as capital assets and use the US dollar as their functional currency. It does not address the tax treatment of US Holders subject to special rules, such as banks, dealers traders in securities that elect to mark to market, insurance companies, tax-exempt entities, holders of 10% or more of the Company's voting shares, persons holding Ordinary Shares as part of a hedge, straddle, conversion, or other integrated financial transaction, or constructive sale transaction and persons that are resident or ordinarily resident in the United Kingdom.

This summary does not address US state or local taxes. It does not consider any investor's particular circumstances. It is not a substitute for tax advice. The Company urges investors to consult their own tax advisers about the tax consequences of purchasing, holding and disposing of Ordinary Shares.

As used in this paragraph 17, "US Holder" means a beneficial owner of Ordinary Shares that is (a) a citizen or resident of the United States for US Federal income tax purposes, (b) a corporation, partnership or other business entity organised under the laws of the United States, (c) a trust subject to the control of a US person and the primary supervision of a US court, (d) an estate the income of which is subject to US federal income tax regardless of its source.

Prospective investors in Ordinary Shares should note that this paragraph 17 deals only with US taxation. Due to the status of the Company as a resident of Switzerland, certain parts of paragraph 16 above ("Swiss Taxation") are potentially relevant to all holders of Ordinary Shares, regardless of the jurisdiction in which any such holder is resident for tax purposes. Prospective investors are referred in particular to paragraph 16.1 for information relating to Swiss withholding tax which will be deducted from dividends paid, and other distributions made, by the Company.

Investors should also note that, as the Company is incorporated in England and Wales, sales and transfers of Ordinary Shares will, regardless of the tax residence of the transferor or transferee, the place of execution of any transfer documentation, or the exchange on which the sale occurs, be subject to UK stamp duty or stamp duty reserve tax (as summarised at 15.5 above) in addition to any applicable Swiss securities issue and transfer tax (summarised at 16.5 above).

Further, a registered holding of Ordinary Shares will have a UK situs for UK inheritance tax purposes. Prospective investors domiciled in the US are referred to paragraphs 15.6 and 15.7 for further information on UK inheritance tax and on relief from such tax under the relevant UK/US treaty.

Dividends

17.2 Subject to the Passive Foreign Investment Company rules discussed below, US Holders generally must include dividends (including the amount of any Swiss or other foreign tax withheld, if any) paid on Ordinary Shares in their gross income as ordinary income from foreign sources. Dividends will not be eligible for the dividends-received deduction generally available to US corporations. Dividends paid to US Holders in pounds sterling will be includable in income in a US dollar amount based on the exchange rate in effect on the date of receipt whether or not the payment is converted into US dollars at that time. Any gain or loss that a US Holder recognises on a subsequent conversion of pounds sterling into US dollars generally will be US source ordinary income or loss.

Subject to generally applicable limitations, a US Holder may be entitled to a credit against its US federal income tax liability, or a deduction in computing its US federal taxable income, for Swiss or other foreign taxes withheld. A US Holder entitled to the benefits of the Switzerland-US income tax treaty may be entitled to claim a partial refund of the Swiss withholding tax generally so as to leave a net Swiss tax cost of 15%. US holders should refer to the discussion of Swiss tax in paragraph 16.1 of this Part VIII for information regarding Swiss withholding taxes.

Dispositions

17.3 Subject to the Passive Foreign Investment Company rules discussed below, US Holders will recognise capital gain or loss on the sale or other disposition of Ordinary Shares in an amount equal to the difference between their adjusted tax basis in the Ordinary Shares determined in US dollars and the US dollar value of the amount realised on sale or other disposition. The gain or loss will be long-term gain or loss if the US Holder has held the Ordinary Shares for more than one year at the time of sale or other

disposition. The deductibility of capital losses is subject to limitations. Any gain or loss will generally be treated as arising from US sources.

A US Holder's basis in Ordinary Shares purchased with pounds sterling generally will be equal to the US dollar value of the pounds sterling on the date of purchase. A US Holder that receives pounds sterling upon sale or other disposition of the Ordinary Shares will realise an amount equal to the US dollar value of the pounds sterling on the date of sale or other disposition (or in the case of cash basis and electing accrual basis taxpayers, the settlement date). A US Holder will have a tax basis in the pounds sterling received equal to the US dollar amount realised. Any gain or loss realised by a US Holder on a subsequent conversion of pounds sterling into US dollars will be US source ordinary income or loss.

Passive Foreign Investment Company rules

17.4 The Company believes that it will not be treated as a Passive Foreign Investment Company, or PFIC, in the current or subsequent taxable years. However, because the PFIC determination is made annually on the basis of the Company's income and assets, including goodwill, the Company cannot assure you that it will not be a PFIC in the current or subsequent taxable years.

In general, the Company will be a PFIC with respect to US Holders for any taxable year in which such US Holder holds Ordinary Shares if 75% or more of the Company's gross income consists of passive income, such as dividends, interest, rents, royalties and gains from assets which produce passive income or 50% or more of the average quarterly value of the Company's assets consists of assets that produce, or are held for the production of, passive income. Passive income generally includes gains from transactions in commodities. The principal products of the Group are considered commodities for this purpose, but passive income does not include active gains from commodities realised by an active producer, processor, merchant, or handler of commodities. Any commodity sale by a company other than in its capacity as an active producer, processor, merchant or handler of commodities is not a qualified active sale. At this time the Company believes that its principal subsidiaries qualify as active producers, processors, merchants or handlers of commodities, and expects that active gains from commodities will be sufficient to enable the Company to avoid PFIC status for the current year. The Company, however, cannot assure that these active producer requirements will be met in future years.

If the Company were a PFIC in any year during which a US Holder owned Ordinary Shares, the US Holder would be subject to a special tax regime that would apply to both (a) any "excess distribution," which would be such US Holder's share of distributions in any year that are greater than 125% of the average annual distributions received by such holder in the three preceding years or such holder's holding period, if shorter; and (b) any gain realised on the sale or other disposition of the Ordinary Shares (whether or not the Company continues to be a PFIC). Under this regime, any excess distribution and realised gain would be treated as ordinary income and would be subject to tax as if the excess distribution or gain had been realised rateably over the US Holder's holding period, the amount deemed realised had been subject to tax in each year of that holding period at the highest applicable tax rate, and the interest charge generally applicable to underpayments of tax had been imposed on the taxes deemed to have been payable in those years. If the Company were a PFIC, and provided the Ordinary Shares are marketable, a US Holder could make a mark-to-market election. Under the election, any excess of the fair market value of the Ordinary Shares at the close of any tax year over the US Holder's adjusted basis in the Ordinary Shares is included in the US Holder's income as ordinary income. In addition, the excess, if any, of the US Holder's adjusted basis at the close of any taxable year over fair market value is deductible in an amount equal to the lesser of the amount of the excess or the net mark-to-market gains on the Ordinary Shares that the US Holder included in income in previous years. If the mark-to-market election were made, then the regime mentioned above generally would not apply for periods covered by the election.

If the Company were a PFIC, US holders of equity interests in a holder of the Ordinary Shares would be treated as indirect holders of their proportionate share of the Ordinary Shares and would be taxed on their proportionate share of any excess distribution or gain attributable to the Ordinary Shares. An indirect holder would also be required to treat an appropriate portion of its gain on the sale or distribution of its interest in the actual holder as gain on the sale of the Ordinary Shares.

A US Holder of Ordinary Shares will not be able to elect to treat the Company as a qualified electing fund, or QEF, because the Company does not intend to prepare the information that US Holders would need to make a QEF election.

US Holders should consult their own tax advisers concerning the potential application of the PFIC provisions, as well as the advisability and timing of making a mark-to-market election or other available election for their Ordinary Shares if the Company is classified as a PFIC.

Information reporting and backup withholding

17.5 Dividends from the Ordinary Shares and proceeds from the sale of the Ordinary Shares may be reported to the Internal Revenue Service ("IRS") unless the holder (a) is a corporation, (b) provides a properly executed IRS Form W-8BEN, or (c) otherwise establishes a basis for exemption. Backup withholding tax may apply to amounts subject to reporting if the holder fails to provide an accurate taxpayer identification number. The amount of any backup withholding tax will be allowed as a credit against the holder's US federal income tax liability.

18. Material contracts

The following contracts, not being contracts entered into in the ordinary course of business, have been entered into by a member of the Group within the two years immediately preceding the date of this document or are expected to be entered into prior to the Global

Offer and are, or may be, material or have been entered into at any time by a member of the Group and contain provisions under which a member of the Group has an obligation or entitlement which is, or may be, material to the Group as at the date of this document:

(a) the Underwriting Agreement dated 20 March 2002 between the Company, Xstrata AG, the Underwriters and the Sponsor providing for the underwriting of the Global Offer, referred to in "– Underwriting Agreement and Lock-up Agreements" in paragraph 9 of this Part VIII;

(b) the Relationship Agreement dated 20 March 2002 between the Company and Glencore International regulating the continuing relationship between the parties and ensuring the Company is capable of carrying on its business independently of Glencore and of Glencore International as controlling shareholder, referred to in "Relationship with Glencore – Relationship with controlling shareholder" in Part II;

(c) the Acquisition Agreement dated 21 February 2002 between the Purchasers, Xstrata AG and the Vendors referred to in "– Agreements relating to the Acquisitions and the Merger" in paragraph 10 of this Part VIII and the agreement amending the Acquisition Agreement dated 20 March 2002;

(d) the Merger Agreement dated as of 20 February 2002 between the Company and Xstrata AG referred to in "– Agreements relating to the Acquisitions and the Merger" in paragraph 10 of this Part VIII;

(e) the Syndicated Loan Facility Agreement dated on or about 20 March 2002 (but in any event prior to Admission) between certain members of the Group, Barclays Capital (the investment banking division of Barclays Bank PLC), Dresdner Kleinwort Wasserstein acting through Dresdner Bank Luxembourg S.A. and J.P. Morgan plc, as mandated lead arrangers, and the banks named therein, as lenders, referred to in "– Agreements relating to the Acquisitions and the Merger" in paragraph 10 of this Part VIII;

(f) the Market Advisory Agreement dated 20 March 2002 between Duiker Marketing AG, Xstrata (Schweiz) AG and Glencore International referred to in "Relationship with Glencore – Commercial relationship – Coal Business" in Part II;

(g) two agreements for the sale and purchase of shares and joint venture interests in the Ulan Coal Mine were entered into on 6 February 2001 by the purchasers Jonsha Pty Ltd ("Jonsha") and Danrod Pty Ltd ("Danrod"). Under the first share sale agreement between Danrod, ESSO Australia Resources Pty Ltd ("ESSO"), SAS Trustee Corporation ("SAS") and Mitsubishi Development Pty Ltd ("MDP"), Danrod obtained a 45% interest in Ulan Coal Mines Ltd ("UCML") and a 25.5% interest in the Ulan Joint Venture for total consideration of A$25,725,615.60. Under the second agreement between Jonsha, ESSO, SAS, MDP and Crowjura Pty Ltd ("Crowjura") together the vendors, Jonsha obtained a 45% interest in UCML and a 64.5% interest in the Ulan Joint Venture for total consideration of A$83,359,946.40. MDP retained a 10% interest in UCML and the Ulan Joint Venture. The vendor warranties under these agreements expired on 5 February 2002;

(h) an agreement for purchase of shares in Cyprus Australia Coal Company (now Enex Oakbridge Pty Ltd) dated 9 March 2000 between Enex Coal Pty Limited, Glencore International, Amax Energy Inc and Phelps Dodge Corporation, pursuant to which Enex Coal Pty Ltd acquired all the issued and outstanding common shares of Cyprus Australia Coal Company (renamed Enex Oakbridge Pty Ltd) for consideration of US$61,625,000. In addition, Enex Coal Pty Ltd assumed US$88,375,000 of parent company debt, bringing the total outflow to US$150,000,000. The only warranties that are still current are in relation to taxation matters. These warranties expire on 30 June 2004.

(i) a share sale agreement dated 27 July 2001 between Xstrata AG, Enex Coal Pty Ltd and Xstrata Windimurra Pty Ltd, pursuant to which Enex Coal Pty Ltd acquired a 100% interest in the issued capital of each of Xstrata Coal Pty Limited (now known as Abelshore Pty Ltd) for consideration of A$73,185,990 and Winarch Pty Limited for consideration of A$100. Following the purchase, Enex Coal Pty Ltd holds an indirect interest in 95% of the issued capital of both United Collieries Pty Ltd, the United Collieries Joint Venture and 100% of the issued capital of Jerry's Plain Coal Terminal Pty Ltd. In addition, Enex Coal Pty Ltd assumed A$52,550,649 of parent company debt, bringing the total outflow to A$125,736,639. Xstrata AG's indemnity and warranties to Enex Coal Pty Ltd remain in force for an indefinite period following completion. Xstrata AG indemnifies Enex Coal Pty Ltd for all liability and losses arising from: (i) a breach of its warranties; (ii) actions (if any) taken from Xstrata AG's representative on the boards of Abelshore Pty Ltd or Winarch Pty Ltd with respect to those companies, which have not been communicated to the other members of those boards; (iii) Abelshore Pty Ltd's 9% interest in, and its involvement as a 9% joint venturer in, the Windimurra Joint Venture and 9% shareholding in Vanadium Australia Pty Ltd and their divestiture; (iv) any amounts which either Abelshore Pty Ltd, Winarch Pty Ltd or Enex Coal Pty Ltd may be called upon to pay in respect of any assessment, re-assessment, amended assessment, default assessment, penalty, fine or any other obligation in respect of any year of income ended before 1 January 2001 which have not been paid or fully provided for and quantified in the accounts; and (v) any loss or outgoing arising from Abelshore Pty Ltd being unable to utilise any prior tax loss because Abelshore Pty Ltd could not satisfy a requirement of the income tax law due to any act, event or omission by Abelshore Pty Ltd occurring prior to completion.

(j) an agreement for sale and purchase of the Ravensworth Coal Supply Business dated 19 December 2001 between Enex Ravensworth Pty Limited ("Enex Ravensworth"), CNA Resources Limited and Glencore International, pursuant to which Enex Ravensworth has agreed to acquire land, the Ravensworth mining assets, a 50% joint venture interest in the Narama mine, all of the issued shares in CNA Coal Ltd, CNA Warkworth Mining Investments Pty Ltd and CNA Opencut Mining Pty Ltd for consideration of US$64 million (subject to adjustment to reflect trading between 26 January 2001 to completion). Within 30 days of completion of this agreement, Enex Ravensworth must provide replacement performance bonds in the sum of A$31,173,750. The vendor is not liable to make any payment for any breach of the vendor's warranties unless a claim is made by Enex

Ravensworth within 15 months of the date of completion (13 March 2002). In addition, the maximum aggregate amount Enex Ravensworth may recover from the vendor under the vendor warranties is limited to the amount of the purchase price.

(k) an asset purchase agreement between Xstrata Aluminum Corporation (a wholly-owned subsidiary of Xstrata AG) and Berkeley Aluminum, Inc. (a wholly-owned subsidiary of Century Aluminum Company) dated as of 31 March 2000, pursuant to which the Xstrata AG Group disposed of its undivided 23% interest in the Mt. Holly primary aluminium smelter in Goose Creek, South Carolina, together with its undivided 23% interest in the Mt. Holly Aluminum Company, which operates the Mt. Holly primary aluminium smelter, its membership interest in Mt. Holly Commerce Park, LLC and US$8 million in net working capital for a total consideration of US$95,000,000, referred to in "Operating and Financial Review-Recent Acquisitions and Disposals-Xstrata" in Part V.

(l) a sale and purchase agreement between Xstrata Energy Corporation A.V.V. (a wholly-owned subsidiary of Xstrata A.G., now renamed Xstrata Capital Corporation A.V.V.), Perez Companc S.A. and Xstrata AG dated 7 June 2000, and effective as of 1 January 2000, pursuant to which the Xstrata AG Group disposed of its 100% shareholding in Südelektra Argentina S.A., holder of a 32.8013% undivided joint venture interest in the Santa Cruz I block located in the Austral Basin, southern Argentina, for a total consideration of US$121,121,000, less an adjustment of US$47,036,276, referred to in "Operating and Financial Review-Recent Acquisitions and Disposals-Xstrata" in Part V.

(m) the agreement dated 10 January 2001 between Xstrata AG, Xstrata Zinc B.V., Xstrata Spain, S.L., Glencore Investments B.V., and Glencore International AG, pursuant to which Glencore Investments B.V. irrevocably and unconditionally undertook to accept the tender offer made by Xstrata Spain, S.L. and Xstrata Zinc B.V. in respect of the issued share capital of Asturiana de Zinc, S.A. pursuant to the agreement, Glencore Investments B.V. sold its entire shareholding of 17,911,838 shares in Asturiana de Zinc, S.A. (representing 44.41% of the total issued share capital of Asturiana de Zinc, S.A.) for an aggregate consideration of €241,809,813.

(n) Richards Bay Coal Terminal Company Limited documents:

(i) Richards Bay Coal Terminal consolidation agreement
An agreement for the continued operation of the Richards Bay Coal Terminal Company Limited ("RBCT Company"), defining the rights and obligations of the parties thereto, became effective as of 28 June 1996 (the "1996 RBCT Agreement"). The parties to the 1996 RBCT Agreement are RBCT Company, Anglo American Coal Corporation Limited, Duiker Mining (Proprietary) Limited, Duiker Coal (Proprietary) Limited, Gold Fields Coal Limited, Ingwe Collieries Limited, Welgedacht Exploration Company Limited, Savage & Lovemore Mining (Proprietary) Limited, JCI Limited, Tavistock Collieries (Proprietary) Limited, Kangra Group (Proprietary) Limited, Shell South Africa (Proprietary) Limited, Total Exploration South Africa (Proprietary) Limited and Sasol Mining (Proprietary) Limited. The 1996 RBCT Agreement, as amended, regulates, amongst other things, the management of RBCT, shareholders' rights and obligations and sets out additional construction works to the Richards Bay Coal Terminal to increase its throughput capacity, ultimately, to 72 million tonnes per annum. The 1996 RBCT Agreement provides, among other things, that: (i) the tonnage of coal which each shareholder of the RBCT Company is entitled to export through the RBCT is in proportion to its respective shareholding; (ii) each shareholder has undertaken not to participate in or utilise another coal export terminal (other than the Durban coal terminal or the Matola coal terminal) without having given ninety days prior written notice to the board of the RBCT Company; and (iii) each shareholder has certain financing obligations towards the RBCT Company in proportion to its respective shareholding.

(ii) Memorandum of Understanding
A memorandum of understanding ("MoU") was entered into on 1 June 2001 to embark upon the Phase V expansion of the Richards Bay Coal Terminal, increasing its throughput capacity to 82 million tonnes per annum and supplementing its existing operations. The parties to the agreement are RBCT Company, South Dunes Coal Terminal Company (Proprietary) Limited, Anglo Operations Limited, Duiker Mining (Proprietary) Limited, Gold Fields Coal Limited, Ingwe Collieries Limited, Kangra Group (Proprietary) Limited, Naudven Mining (Proprietary) Limited, Sasol Mining (Proprietary) Limited, and Total Exploration South Africa (Proprietary) Limited. It is anticipated that the parties to the MoU will enter into an agreement to amend the 1996 RBCT Agreement. The conditions precedent detailed in the MoU were fulfilled as of 4 December 2001 and the RBCT Company has since been required to formally approve the Phase V expansion of the Richards Bay Coal Terminal referred to in the MoU. The MoU provides, among other things, that each RBCT Company shareholder will contribute to the financing of the Phase V expansion of the Richards Bay Coal Terminal in proportion to its respective shareholdings.

See "Information on the Group-Coal Business-South African operations-Transportation of the South African operations coal" in Part I.

19. Working capital

In the opinion of the Company, following the Acquisitions and the Merger becoming effective and taking account of the Group's existing banking facilities, the net proceeds of the Global Offer and the Syndicated Loan Facility, the working capital available to the Group is sufficient for the Group's present requirements, that is, for the next 12 months following the date of this document.

20. Litigation

No member of the Group is or has been engaged in nor, so far as the Group is aware, has pending or threatened, any legal or arbitration proceedings which may have, or have had during the 12 months preceding the date of this document, a significant effect on the Group's financial position.

21. Significant change

There has been no significant change in the financial or trading position of the Group since 31 December 2001, the date to which the last audited consolidated financial statements of the Xstrata AG Group, Enex Group and Duiker Group were prepared.

22. Consents

22.1 Ernst & Young LLP has given and has not withdrawn its written consent to the inclusion in this document of its name, reports and references to it in the form and context in which they appear and has authorised the contents of its reports for the purposes of paragraph 6(1)(e) of the Financial Services and Markets Act 2000 (Official Listing of Securities) Regulations 2001.

22.2 Minarco Pty Limited has given and has not withdrawn its written consent to the inclusion in this document of its name, report and references to it in the form and context in which they appear and has authorised the contents of its report for the purposes of paragraph 6(1)(e) of the Financial Services and Markets Act 2000 (Official Listing of Securities) Regulations 2001.

22.3 Weir International Mining Consultants has given and has not withdrawn its written consent to the inclusion in this document of its name, report and references to it in the form and context in which they appear and has authorised the contents of its report for the purposes of paragraph 6(1)(e) of the Financial Services and Markets Act 2000 (Official Listing of Securities) Regulations 2001.

22.4 Pincock, Allen & Holt has given and has not withdrawn its written consent to the inclusion in this document of its name, report and references to it in the form and context in which they appear and has authorised the contents of its report for the purposes of paragraph 6(1)(e) of the Financial Services and Markets Act 2000 (Official Listing of Securities) Regulations 2001.

22.5 BFP Consultants Pty Ltd has given and has not withdrawn its written consent to the inclusion in this document of its name, report and references to it in the form and context in which they appear and has authorised the contents of its report for the purposes of paragraph 6(1)(e) of the Financial Services and Markets Act 2000 (Official Listing of Securities) Regulations 2001.

22.6 IMC Mackay & Schnellmann has given and has not withdrawn its written consent to the inclusion in this document of its name, report and references to it in the form and context in which they appear and has authorised the contents of its report for the purposes of paragraph 6(1)(e) of the Financial Services and Markets Act 2000 (Official Listing of Securities) Regulations 2001.

22.7 AME has given and has not withdrawn its written consent to the inclusion in this document of its name and references to it and cost curve information produced by it in the form and context in which it appears.

22.8 Brook Hunt has given and has not withdrawn its written consent to the inclusion in this document of its name and references to it and cost curve information produced by it in the form and context in which it appears.

22.9 CRU has given and has not withdrawn its written consent to the inclusion in this document of its name and references to it and cost curve information produced by it in the form and context in which it appears.

22.10 JPMorgan has given and not withdrawn its consent to the inclusion in this document of its name in the form and context in which it appears.

23. Miscellaneous

23.1 The expenses relating to the issue of the Ordinary Shares, including the UK Listing Authority listing fee, professional fees and expenses and the costs of printing of documents are estimated to amount to approximately £41 million (including VAT) (or approximately £46 million (including VAT) assuming that the Manager's Option is exercised) and are payable by the Company.

23.2 Each Ordinary Share to be issued under the Global Offer will be issued at a premium of US$11.89 to its nominal value of US$0.50 (based upon the spot rate of exchange (closing mid-point) for pounds sterling into US dollars of £1:US$1.4247 on 18 March 2002, the last practicable day before the date of this document, as published in the London edition of the *Financial Times* on 19 March 2002).

24. Documents available for inspection

Copies of the following documents are available for inspection during usual business hours on any weekday (Saturdays, Sundays and public holidays excepted) for a period of 14 days from the date of publication of this document at the offices of Freshfields Bruckhaus Deringer at 65 Fleet Street, London EC4Y 1HS:

(a) the memorandum and articles of association of the Company and a final draft (subject to amendments) of the Voting Agreement referred to in "Summary of the memorandum and articles of association – Articles of association" in paragraph 3 of this Part VIII;

(b) the audited financial statements of the Xstrata AG and Enex Groups for the three financial years ended 31 December 1999, 2000 and 2001 and the audited financial statements of the Duiker Group for the year ended 30 September 1999, the 15 months ended 31 December 2000 and the year ended 31 December 2001 and the audited non-statutory accounts of Xstrata, Duiker Marketing AG and Glencore Overseas AG for the year ended, or in the case of Xstrata, as at, 31 December 2001;

(c) all Directors' service agreements, secondment agreements and letters of appointment referred to in "Directors' service agreements" in this Part VIII;

(d) the material contracts referred to in "Material contracts" in this Part VIII;

(e) the rules of the Xstrata AG Share Schemes and of the Xstrata Long Term Incentive Plan and the form of trust deeds of the Xstrata Employee and Directors Share Ownership Trust and of the Xstrata Employee Share Ownership Trust;

(f) the consent letters referred to in "Consents" in this Part VIII;

(g) the reports from Ernst & Young LLP set out in Part VI together with the statements of adjustments relating to the reports set out in Part VI;

(h) the reports from Minarco Pty Limited, Weir International Mining Consultants, IMC Mackay & Schnellmann, BFP Consultants Pty Ltd and Pincock, Allen & Holt and the technical report prepared by Xstrata South Africa set out in Part IX; and

(i) the letter from Ernst & Young LLP regarding the pro forma financial information set out in Part VII.

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Competent persons' and technical reports

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As required by Chapter 19 of the Listing Rules, this Part contains the following competent persons' reports:

Coal Business

- Report for the Group's Australian coal assets prepared by Minarco Pty Limited; and
- Report for the Group's South African coal assets prepared by Weir International Mining Consultants.

Zinc Business

- Report for the Group's zinc operations in Spain prepared by Pincock, Allen & Holt.

Ferroalloys Business

- Report for the Group's South African chrome and vanadium assets prepared by IMC Mackay & Schnellmann; and
- Report for the Group's Australian vanadium assets prepared by BFP Consultants Pty Ltd.

In addition, the UKLA has requested that the Company prepare and include in these listing particulars a technical report for the Group's Maloma anthracite mine in Swaziland, South Africa.

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20 March 2002

Dear Sirs

COMPETENT PERSON'S REPORT FOR THE AUSTRALIAN COAL ASSETS HELD BY THE ENEX GROUP

1. Introduction

1.1 Purpose of report

This report has been prepared by Minarco Pty Limited ("Minarco") for inclusion in listing particulars (the "Listing Particulars") to be published by Xstrata plc (the "Company") in connection with a global offer of ordinary shares in the Company (the "Global Offer") and the proposed admission of the ordinary shares of the Company to the Official List of the UK Listing Authority (the "UKLA") and the admission of such shares to trading on London Stock Exchange plc's market for listed securities.

Minarco was instructed by the directors of the Company to conduct an independent technical review ("ITR") of the Australian coal assets held by Enex Resources Limited ("Enex") and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings (the "Enex Group"). This report, which summarises the findings of our review, has been prepared in order to satisfy the requirements of a competent person's report as set out in Chapter 19 of the listing rules of the UKLA.

Minarco has conducted its review in accordance with the requirements of Chapter 19 of the listing rules of the UKLA and, with respect to resources and reserves, the "Australasian Code for Reporting Mineral Resources and Reserves" (September 1999) published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia (the "JORC Code"). The JORC Code establishes the nature of evidence required to ensure compliance with the JORC Code. The review was conducted with regard to the JORC Code because it is internationally recognised. In this report, all resource and reserve estimates are reported in accordance with the JORC Code and have been substantiated by evidence obtained from our site visits and observation. They are supported by details of drilling results, analyses and other evidence and take account of all relevant information supplied to us by the Enex Group's Management and the directors of the Company.

In accordance with Chapter 19 of the listing rules of the UKLA, only Proved and Probable Reserves have been valued. Other assets of the Enex Group, which include extensive resources, have not been valued.

1.2 Capability and independence

This report was prepared on behalf of Minarco by the signatories to this report, details of whose qualifications and experience are set out in Annex A to this report.

Minarco operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to the resources and financial services industry.

Minarco has received, and will receive, professional fees for its preparation of this report. However, none of Minarco or its directors, staff or sub-consultants who contributed to this report has any interest in:

- the Company or the Enex Group; or
- the mining assets reviewed; or
- the outcome of the Global Offer.

Drafts of this report were provided to the Enex Group, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

1.3 Scope of work/materiality/limitations and exclusions

Minarco reviewed the assets in accordance with the scope of work and exclusions and limitations and on the basis of the materiality criteria set out in Annex B to this report.

Minarco has independently assessed the assets of the Enex Group by reviewing pertinent data, including resources, reserves, manpower requirements, environmental issues and the life-of-mine plans relating to productivity, production, operating costs, capital expenditures and revenues. All opinions, findings and conclusions expressed in this report are those of Minarco and its sub-consultants.

1.4 Inherent mining risks

Coal mining, and in particular underground coal mining, is carried out in an environment where not all events are predictable. Whilst an effective management team can, firstly, identify the known risks, and secondly, take measures to manage and mitigate these risks, there is still the possibility of unexpected and unpredictable events occurring. It is not possible therefore to remove totally all risks or state with certainty that an event that may have a material impact on the operation of a coal mine, will not occur.

1.5 Glossary of terms

Words and expressions used in this report are defined in Part X of the Listing Particulars.

2. Overview

Minarco is satisfied that the Enex Group's management has established a capable management team at each operating asset. Minarco found that management understands the key drivers and risks at each of the coal mines and has developed credible mine operation plans that address these drivers and risks. Although projected results are subject to variances in accuracy and to risks typically associated with mining, the LOM plans are based on sound reserves, sound technology, supportable production levels and adequate infrastructure. Minarco found nothing during the preparation of this competent person's report ("CPR"), which would have a material impact (as defined in Section 1.3) upon the LOM forecast production or capital or operating costs of any Enex Group asset.

2.1 Description of assets

Since commencing its acquisition programme in the 1990s, the Enex Group has made a number of relatively large scale acquisitions, which have seen saleable production under the Enex Group's management increase to 31.5 million tonnes per annum. This is about 10% of total Australian coal production. The majority of the Enex Group's assets are located in the Hunter and Newcastle Coalfields of New South Wales. The Enex Group exports its coal mainly through the port of Newcastle. The Enex Group's forecast exports through Newcastle for 2002 will amount to about 35% of all coal exported through this port.

As a result of these acquisitions, the Enex Group has embarked upon a challenging phase of integration, planning and expansion. The result of this work has been the evolution of a portfolio of coal mines that are characterised by skilled and capable management, increasing productivity and reducing operating costs. The Enex Group has implemented strategies for improved geological data collection and consistent and high standards of recording, reporting and planning. These strategies have improved productivity which, in some cases, has been dramatic.

The Enex Group manages eight mining operations comprising 13 coal mines in New South Wales with nine projects under consideration. The Enex Group also has a 50% interest in one coal mine (Cook in Queensland) that is operated by another company. The coal mines produce a wide range of coal products for export markets and thermal coal is also sold to domestic power utilities.

On 13 March 2002, the Enex Group purchased the Ravensworth/Narama assets from Coal & Allied Limited. These assets include the Narama and Ravensworth East coal mines and the Ravensworth West project. The acquisition by the Enex Group of the land in which the Ravensworth West project exists has not yet been completed.

The Enex Group's portfolio of assets provides it with a balanced risk profile. It operates both opencut and underground coal mines.

Because it produces such a diversity of coal products, the Enex Group is able to realise coal quality synergies between coal mines, particularly between its Hunter Coalfield coal mines where blending at the port of Newcastle facilitates previously unavailable operating and marketing flexibility (as the coal mines were owned by different parties). The coal mines also benefit from group-wide mining, accounting and management expertise.

A summary of the key characteristics of the assets is included in **Table 2.1**.

Table 2.1 - Mining operations

Mine/Project	*Enex* Group interest	*Status*	*Type*	*Principal* mining method	*Date mine* commenced operation
Oakbridge Group	**66.5%**				
Bulga Opencut	58.2%	Operating	Opencut	Dragline, truck and shovel	1981
South Bulga Underground	58.2%	Operating	Underground	CM development and longwall extraction	1992
Beltana	58.2%	Project[1]	Underground	CM development and longwall extraction	2001[2]
Bulga Long Term	58.2%	Project[3]	Underground	CM development and longwall extraction	n/a
Baal Bone	63.2%	Operating	Underground	CM development and longwall extraction	1983[2]
Running Stream	66.5%	Project	Opencut/Underground	Opencut with underground potential	n/a
Macquarie Coal Joint Venture	**80%**				
West Wallsend	80%	Operating	Underground	CM development and longwall extraction	1969
Westside	80%	Operating	Opencut	Excavator and truck	1986
Cardiff Borehole	80%	Project	Underground	CM development, limited extraction	n/a
Mitchells Flat	100%	Project	Underground	Underground and opencut potential	n/a
Teralba	80%	Care and maintenance	Underground	Care and maintenance	n/a
Liddell Group	**67.5%**				
Liddell	67.5%	Operating	Opencut	Truck and shovel from discrete pits	1989
Glendell	67.5%	Project[3]	Opencut	Truck and shovel and dragline with underground potential	n/a
Togara North	33.3%[4]	Project	Opencut/Underground	CM development and longwall extraction, truck and shovel	n/a
Cumnock	**84%**				
Cumnock Underground	84%	Operating	Underground	CM development and longwall extraction	1995
Cumnock Opencut	*84%*	*Project*[3]	*Opencut*	*Truck and shovel*	*n/a*
Mount Owen	**100%**	Operating	Opencut	Truck and shovel, terrace mining	1993
Cook	**50%**	Operating	Underground	CM development and extraction	1974
United	**95%**	Operating	Underground	CM development, future longwall extraction	1992
Ulan	**90%**				
Ulan Underground	90%	Operating	Underground	CM development and longwall extraction	1986
Ulan Opencut	90%	Operating	Opencut	Dragline, truck and shovel	1982
Ravensworth Group					
Narama	*50%*	*Operating*	*Opencut*	*Dragline, truck and shovel*	1992
Ravensworth East	100%	Operating	Opencut	Truck and shovel	2000
Ravensworth West	100%[5]	Project[3]	Opencut	Dragline, truck and shovel	n/a

Note: CM means continuous miner.

(1) Beltana is classified as a project, but preliminary mining has commenced.

(2) Exploration adits commenced drivage in August 2001.

(3) To be developed within the term of Enex LOM forecasts.

(4) Refer to Section 3.3.3.

(5) The Enex Group has agreed to acquire the land on which the Ravensworth West project is situated. This acquisition will be completed as soon as subdivision approval is obtained from local authorities.

The general locations of the Enex Groups's assets are shown in **Figure 2.1** following and the more specific locations within the relevant coalfields for the various assets are shown in **Figures 2.2, 2.3, 2.4** and **2.5**.

A summary of the assets is provided in Section 3.

2.2 *Summary of geology*

All the Enex Group's coal assets are located within the country's two primary coal mining areas - New South Wales' Sydney Basin (the Hunter, Newcastle and Western Coalfields) and Queensland's Bowen Basin.

The distribution of assets between their mining areas is shown in **Table 2.2**.

Table 2.2 - Distribution of assets

Hunter Coalfield	Newcastle Coalfield	Western Coalfield	Bowen Basin
Bulga	West Wallsend	Baal Bone	Cook
South Bulga	Westside	Ulan	Togara North
Beltana	Cardiff Borehole	Running Stream	
Bulga Long Term	Mitchells Flat		
Liddell	Teralba		
Cumnock			
Mount Owen			
United			
Glendell			
Narama			
Ravensworth East			
Ravensworth West			

Hunter Coalfield

The Hunter Coalfield of the Sydney Basin is approximately 150 kilometres north of Sydney and covers an area in excess of 5,000 square kilometres. The coalfield extends north-westwards from Cessnock to Muswellbrook and then north to Murrurundi, a distance of approximately 120 kilometres. Mine operations are concentrated in a strip 25 kilometres wide and 60 kilometres long in the lower section of the coalfield.

The Hunter Coalfield is the largest coal producing area in New South Wales and raw coal production has been steadily increasing for the past decade. A significant proportion of the coal is at comparatively shallow depths, making it accessible to large-scale, multi-seam opencut operations. Very large underground resources are present in many of the coal seams. Most of the resource is thermal quality coal, with low to medium ash coal for export and high ash coal for domestic power generation. Semi-soft coking coal is also produced from the Hunter Coalfield mainly for the export market.

The Permian stratigraphy of the Hunter Coalfield is complicated by marked lateral variations in lithology and thickness of the numerous units. These variations are a result of several factors, including alternating marine transgressions and regressions, tectonism outside the basin and the growth of intra-basin structures such as the Muswellbrook and Lochinvar anticlines.

The major thrust fault system, the Hunter Thrust, limits the development of the coal bearing strata along the basin's eastern boundary. Active periods of volcanism throughout the Permian led to deposition of widespread tuffs in the Hunter Valley. These tuffs are quite distinctive and are used as marker horizons for stratigraphic correlation.

Igneous intrusions such as dykes and sills are not a major problem in the Hunter Coalfield, since they tend to affect only small areas in individual coal seams.

Three coal measure sequences occur in the Hunter Coalfield: early to mid Permian Greta Coal Measures, Late Permian Wittingham Coal Measures and the overlying Late Permian Wollombi Coal Measures (see **Figure 2.6**). The Wittingham and Wollombi Coal Measures are also collectively referred to as the Singleton Supergroup, which has a maximum thickness of approximately 1,500 metres.

The Wittingham Coal Measures are subdivided into two economic coal-bearing subgroups, the lower Vane Subgroup (Foybrook Formation) and the overlying Jerrys Plains Subgroup.

Up to 10 seams occur in the Foybrook Formation with the Barrett, Liddell, Arties and Pikes Gully Seams and their splits being high-producing coal seams. Foybrook Formation coals are primarily sold as thermal quality coals, both to the export market and for local consumption by the Liddell and Bayswater power stations. Several commercial blends of low ash semi-soft coking coals are produced to supply the export markets.

Up to 15 seams occur in the Jerrys Plain Subgroup and all are currently mined at some location in the Hunter Coalfield. Most of the coal is marketed as low to medium ash, medium volatile, low sulphur thermal coal for export and as low ash, medium volatile semi-soft coking coal.

Newcastle Coalfield

The Newcastle Coalfield extends south and west from the port of Newcastle. Coal was first mined from the Newcastle Coalfield 200 years ago.

The major structures are the north-south striking Lochinvar Anticline and Macquarie Syncline and these structures tend to exert a dominant influence on the distribution and thickness of the sedimentary sequence.

The strata dips are usually less than 5 degrees with some areas of steeper dip associated with the anticline. The northern boundary of the coalfield is defined by the Hunter Thrust where present, which also forms the eastern limit of the adjacent Hunter Coalfield.

The Newcastle Coal Measures are the uppermost coal-bearing sequence in the coalfield and range from less than 60 metres thick on the flank of the anticline to more than 400 metres thick in the syncline. At least 15 seam groupings have been identified and named and numerous seam splits develop in the vicinity of sedimentary wedges and conglomerate/sandstone channel deposits. Major marker units include volcanic ash-fall tuffs which may be traced throughout the coalfield (see **Figure 2.7**).

The principal structural features at mine scale are north-west striking normal faults and north-south striking thrust faults with up to 10 metres vertical displacement. Igneous activity is represented by north-west striking dykes and some extensive sills. There are very few igneous plugs.

The lower seams in the Newcastle Coal Measures produce low to medium ash semi-soft coking coal and medium ash thermal coal. The upper seams produce medium to high ash thermal coal.

Western Coalfield

The Western Coalfield extends from Lithgow, 100 kilometres west of Sydney, to Ulan, approximately 200 kilometres north-west of Newcastle. The coal measures strata, which dip gently to the east and north-east are underlain by a Palaeozoic basement of granite and metamorphics and overlain by Triassic sandstones (see **Figure 2.8**).

Up to eight coal seams occur within the coal-bearing sequence of conglomerate, sandstone, shale and tuffaceous claystone and often only one seam has economic potential at any location. The coal is typically dull, high volatile bituminous rank with medium to high ash and low to medium sulphur providing high grade thermal coal for domestic and export uses with minor potential for metallurgical uses.

The coalfield contains few large scale structures which affect mining. The depth of cover ranges from subcrop to more than 400 metres. Some areas within the coalfield are intruded by igneous plugs and sills.

The resistant Triassic sandstone forms a rugged surface, with high clifflines and heavy tree cover. Most of the eastern side of the coalfield is included in National Parks.

Bowen Basin

The most important of the Permian coal basins in Queensland in terms of both resources and production, the Bowen Basin extends from Collinsville in the north to Theodore in the south, where it is overlain by the younger sediments of the Surat Basin.

Sedimentation in the Bowen Basin occurred in a wide variety of depositional environments and the coal measures reflect this diversity with variation in seam thickness, lateral continuity and coal quality. Triassic rocks, which overlie the Permian coal measures in much of the basin do not contain coal.

The basin is characterised by the level of structural deformation, largely of a compressional nature, increasing towards the east.

The differing responses of the strata to this Late Triassic thrusting determined where coals suitable for mining were preserved.

Igneous dykes and sills intrude the coal-bearing strata in some areas. Much of the basin is overlain by more recent sediments and basaltic lava flows of Tertiary age.

There were four main periods of coal deposition in the Bowen Basin giving rise to coal bearing strata occurring at different stratigraphic levels. Each period of deposition which resulted in the accumulation of coal measure sediments in each group was followed by a period of marine (non-coal) deposition.

The Moranbah-German Creek Coal Measures and the younger Rangal Coal Measures contain the bulk of the economic coal resources of the Bowen Basin. **Figure 2.9** shows the relevant coal measures for each operating mine and major project located in the Bowen Basin. The Enex Group's assets namely, Cook and the Togara North project, target the Rangal Coal Measures.

Coal seams in the Bowen Basin exhibit variations in rank and quality. A broad pattern of increasing rank of coal within individual formations from west to east is apparent and tends to reflect the effects of depth of burial, although igneous intrusions can locally influence rank. In the eastern part of the basin, the coal rank ranges from low volatile bituminous to anthracitic and deposits are structurally more complex. Coals in the central and north-western part of the basin are medium to high volatile bituminous and include some of Australia's highest quality coking coals. Structural deformation in these deposits is often relatively mild.

2.3 Summary of resources and reserves

Minarco is of the opinion that the Enex Group has a strong commitment to understanding the geology of the coal resource of each asset. This has enabled technical, operational and marketing personnel to identify opportunities particular to each asset and to implement strategies that maximise resource development within the framework of the total business.

The Enex Group has standardised the collection and treatment of geological, geotechnical and coal quality data for each asset. Each coal mine, while autonomous as a business unit, has a comprehensive geological and resource assessment, computerised database and geological model accessible to technical staff.

The assets owned by the Enex Group are diverse. Previous owners relied upon very different standards of exploration. Minarco found that, upon acquiring each asset, the Enex Group identified the adequacy of existing data and data collection techniques and determined the resulting exploration requirements. The Enex Group then conducted exploration to a standard which supports a high level of confidence for short-term mining operations and long-term mine planning.

The Enex Group's focus on understanding the geology of each asset is evident in the relatively high proportion (approximately 70%) of the total coal resources which are classified as Measured and Indicated Resources. Consequently, the Enex Group can exploit a very large Recoverable Reserve base and integrate long-term planning options between the various assets with a high level of confidence.

Other than for the Ravensworth Group mines, resources were estimated in accordance with the JORC Code in mid-2001. The estimates were prepared by McElroy Bryan Geological Services Pty Limited ("MBGS") for all resources except Liddell resources (with the exception of Liddell underground Inferred Resources) which were estimated by Mining & Exploration Geology Services Pty Limited. The resource estimates for all assets were updated to 30 November 2001 for the CPR largely by taking into account the coal production from the asset since the previous resource assessment and any recent modification to mine layout.

The Ravensworth Group mines were acquired by the Enex Group on 13 March 2002. MBGS has estimated the resources in accordance with the JORC Code as at 28 February 2002. Minarco has reviewed the resource data, mine plans and all supporting documentation and is satisfied the reserves are JORC compliant. Therefore in accordance with the listing rules of the UKLA, these reserves have been included in preparing the valuation in paragraph 2.10.

Coal resources for each mine or project area were estimated after assessment of the quality, quantity and distribution of geoscientific points of observations and knowledge available for that site. The exploration data was in all cases collected from a variety of sources by different companies over the life of each project. Points of observation such as cored and non-cored drill holes, outcrops, geological mapping of opencut pits and underground mine workings, in-seam drilling and geophysical data derived from seismic or magnetometer surveys provided a level of confidence of seam continuity throughout each resource block.

Additional information such as lithological and geotechnical logging of core samples, coal quality analyses from core samples and mine strip samples, down hole geophysical logging and sonic acoustic scanners were used to establish evidence of grade (quality) continuity and structural disturbance of the coal-bearing strata. Detailed validation of data stored in geological databases was carried out and checked for integrity against raw data, especially in relation to seam thickness and relative density. The process used to create geological computer models was critically reviewed and validated.

Resources were classified as Measured, Indicated and Inferred according to the level of confidence in the geological interpretation and were estimated within discrete resource blocks, on the basis of resource classification, geological and surficial limits. In general, Measured Resources were supported by data points of observation close enough (generally less than 500 metres apart) to support a high level of confidence in the geological and/or grade continuity. Indicated Resources were supported by points of observation generally less than 1 kilometre apart and Inferred Resources, characterised by a lower level of confidence in seam continuity and quality, were typically supported by data points more than 1 kilometre apart.

Proved, Probable, Recoverable and Marketable Reserves are based on Measured and Indicated Resources and were estimated for each coal mine and for those projects in which the appropriate level of planning has been carried out. A summary of resources and reserves is shown in **Table 2.3**.

Minarco found that the Enex Group has developed mine layouts over areas of Measured and Indicated Resources, which generate forward schedules in the range of 10 to 20 years. This has been achieved by completing mining options studies and economic sensitivity analyses, which optimise value whilst minimising mining risks. Minarco's review found that where sufficient reserves exist, these plans are continually reviewed to maintain this 10 to 20 year planning horizon.

Table 2.3 - Summary of resources and reserves

Mine/project	Type of mine	Total mine							Attributable					
		Inferred Resources (Mt)	Measured and Indicated Resources (Mt)	Proved Reserves (Mt)	Probable Reserves (Mt)	Recoverable Reserves (Mt)	Processing yield (%)	Marketable Reserves (Mt)	Inferred Resources (Mt)	Measured and Indicated Resources (Mt)	Proved Reserves (Mt)	Probable Reserves (Mt)	Recoverable Reserves (Mt)	Marketable Reserves (Mt)
Oakbridge Group														
Bulga Opencut	Opencut	–	75	76	-	76	73.7	56	–	44	44	–	44	33
South Bulga	Underground	-	9	4	1	5	56	3	–	5	2	1	3	2
Beltana	Underground	-	27	18	5	23	67.2	15	–	16	11	3	13	9
Bulga Long Term	Underground	581	653	76	56	132	79	104.1	338	380	44	32	77	61
Baal Bone	Opencut	-	1	1	-	1	100	1	–	1	0	–	0	0
	Underground	-	47	11	4	14	88.1	13	–	30	7	2	9	8
Running Stream	Opencut	-	13	-	-	-	-	-	–	9	–	–	–	–
	Underground	60	73	-	-	-	-	-	40	49	–	–	–	–
Macquarie Coal Joint Venture														
West Wallsend	Underground	-	129	37	35	72	69.5	50	–	103	30	28	57	40
Westside	Opencut	-	7	6	-	6	100	6	–	6	5	–	5	5
Cardiff Borehole	Underground	22	15	-	-	-	-	-	18	12	–	–	–	–
Mitchells Flat	Opencut	-	31	-	-	-	-	-	–	31	–	–	–	–
	Underground	25	216	-	-	-	-	-	25	216	–	–	–	–
Teralba	Underground	-	86	-	-	-	-	-	–	69	–	–	–	–
Liddell Group														
Liddell	Opencut	35	348	42	86	127.7	67.6	86	24	235	28	58	86	58
	Underground	234	21	-	-	-	-	-	158	14	–	–	–	–
Glendell	Opencut	-	59	25	23	47.1	68.6	32	–	40	17	15	32	22
	Underground	-	34	-	-	-	-	-	–	23	–	–	–	–
Togara North	Opencut	-	18	3	-	3.0	-	n/a	–	6	1	–	1	–
	Underground	-	1,120	-	97	97.0	97.9	95.0	–	373	–	32	32	32
Cumnock	Opencut	-	32	8	-	8.1	76.5	6	–	26	7	–	7	5
	Underground	-	151	18	3	21.4	73.4	16	–	126	15	3	18	13
Mount Owen	Opencut	95	188	8	109	116.5	68.4	80	95	188	8	109	117	80
Cook	Underground	750	78	-	-	-	-	-	375	39	–	–	–	–
United	Underground	30	116	16	0	15.8	74.7	12	29	110	15	0	15	11
Ulan	Opencut	-	36	14	8	22.1	62.9	14	–	32	13	7	20	13
	Underground	-	285	87	113.0	199.8	88.3	176	–	256	78	102	180	159
Ravensworth Group														
Narama	Opencut	–	29	–	24	23.6	100	24	–	15	–	12	12	12
Ravensworth East	Opencut	30	119	–	38	37.9	100	38	30	119	–	38	38	38
Ravensworth West	Opencut	–	80	–	19	18.7	100	19	–	80	–	19	19	19
Total	**Opencut**	**160**	**1,036**	**182**	**305**	**487**		**361**	**149**	**831**	**122**	**258**	**380**	**284**
Total	**Underground**	**1,702**	**3,060**	**266**	**314**	**580**		**484**	**982**	**1,821**	**201**	**203**	**404**	**334**
Total		**1,862**	**4,096**	**448**	**619**	**1,067**		**845**	**1,130**	**2,652**	**323**	**461**	**784**	**617**

Note: reserves are a subset of resources and are included in the resource estimate. The resource and reserve figures tabulated have been stated on a total mine basis and on an attributable basis as at 30 November 2001 (with the exception of the Ravensworth Group mines which are as at 28 February 2002). Reserves and resources stated on a total mine basis include interests in resources and reserves attributable to minority interests in controlled subsidiaries and the interests of joint venture partners. Figures are subject to rounding and therefore totals may not add up.

2.4 Mines and projects

2.4.1 Mining methods and equipment

Minarco inspected operations at each coal mine. Minarco observed that each coal mine operator uses well maintained, modern mining equipment as well as technology and mining methods typical for the Australian coal industry and suited to the targeted resources. In summary:

- **Opencut** - mining equipment ranges from large dragline to smaller shovel/excavator/loader and truck haulage for overburden removal. Some coal mines utilise bulldozers and throw blasting to optimise overburden removal efficiency. Coal mining systems range from simple loader and truck haulage to in-pit crushing and overland conveyor. Mining activities at some opencut operations utilise contract mining services. These contractors generally provide both overburden removal and coal mining services. Approved projects are planned to be mined using a combination of owner and contractor mining.
- **Underground** - in line with industry trends, most of the production from the Enex Group's underground coal mines is by longwall extraction. This offers significantly higher productivity and lower costs than alternative underground methods. Continuous miners are used to develop main heading roadways and longwall gate roads. Continuous miners are used for both development and extraction at some mines. Future underground projects are most likely to utilise longwall extraction. The Enex Group operates all underground coal mines (with the exception of the Cook coal mine).

Minarco has examined the operating history of each of the major plant items at each coal mine, including ownership (i.e. owned or leased), age of plant and overhaul history.

Minarco is satisfied that:

- the major plant items are suited to their intended application at each coal mine;
- the plant is well maintained;
- the historical costs for repair and maintenance of plant are reasonable; and
- the Enex Group's forecasts of capital expenditure for major plant replacement are consistent with the age/condition of equipment and industry practice.

2.4.2 Production levels

Minarco reviewed the Enex Group's production forecasts for each coal mine. These forecasts are based on historical performance with increased production included only where clearly defined and where realistic operating improvements or expansions have been identified and implemented. Minarco's review indicates that the overall production under the Enex Group's management will steadily increase from 31.5 million tonnes in 2001 to 43.1 million tonnes in 2005. This increase will be achieved through operating improvements plus additional output from the development of new projects and the recent acquisition of the Ravensworth Group mines. A comparison of actual production for 1999, 2000 and 2001 is shown in **Table 2.4.**

Table 2.4 - Coal mine saleable production and sales

Mine/project[5]	Enex attributable interest (%)	Mine production (Mt)[1]			Attributable production (Mt)[2]			Total mine sales (Mt)[3]			Attributable sales (Mt)[4]			Attributable metallurgical export sales (Mt)[4]			Attributable thermal export sales(Mt)[4]			Attributable domestic sales (Mt)[4]		
		1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
Oakbridge Group																						
Bulga Opencut	58%	4.3	4.4	3.9	–	1.5	2.2	4.3	4.5	3.7	–	1.7	2.1	–	0.4	0.4	–	1.3	1.7	–	0.0	0.0
South Bulga Underground	58%	2.6	2.7	2.5	–	0.9	1.4	2.5	2.7	2.4	–	1.0	1.3	–	0.0	0.0	–	1.0	1.3	–	0.0	0.0
Baal Bone	63%	1.8	1.7	2.4	–	0.6	1.4	1.9	1.5	2.4	–	0.8	1.4	–	0.0	0.1	–	0.5	0.7	–	0.3	0.6
Macquarie Coal Joint Venture																						
West Wallsend	80%	2.5	2.4	2.7	1.1	1.9	2.2	2.8	2.4	2.3	1.2	2.0	1.9	0.4	0.6	0.5	0.8	1.3	1.4	0.0	0.1	0.0
Westside	80%	0.6	0.7	0.7	0.3	0.6	0.5	0.6	0.7	0.7	0.3	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.5
Teralba	80%	0.5	0.5	0.2	0.2	0.4	0.2	0.5	0.5	0.3	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0
Liddell Group																						
Liddell	68%	2.0	2.0	2.7	0.7	1.4	1.8	2.0	2.0	2.4	0.7	1.3	1.6	0.3	0.5	0.5	0.4	0.7	0.9	0.0	0.1	0.1
Cumnock																						
Cumnock Underground	84%	1.4	2.0	1.4	–	–	1.1	1.6	1.9	1.5	–	–	1.2	1.1	0.0	0.0	–	–	–	–	–	–
Mount Owen	100%	3.4	3.4	4.4	3.4	3.4	4.4	3.2	3.3	4.4	3.2	3.3	4.4	0.6	0.7	0.9	2.3	2.1	3.2	0.2	0.5	0.2
United	95%	1.4	1.0	0.8	–	–	0.3	1.3	1.1	0.8	–	–	0.3	–	–	0.3	–	–	0.0	–	–	0.0
Ulan																						
Ulan Underground	90%	3.1	2.8	3.5	–	–	2.8	3.0	3.0	3.4	–	–	2.9	–	–	–	–	–	2.6	–	–	0.3
Ulan Opencut	90%	2.2	1.9	2.3	–	–	1.8	2.1	2.0	2.0	–	–	1.6	–	–	–	–	–	0.9	–	–	0.8
Ravensworth Group[6]																						
Narama	50%	2.1	2.2	2.4	–	–	–	2.1	2.2	2.4	–	–	–	–	–	–	–	–	–	–	–	–
Ravensworth East	100%	–	0.1	1.7	–	–	–	–	0.1	1.7	–	–	–	–	–	–	–	–	–	–	–	–
Total Opencut		**14.7**	**14.7**	**18.0**	**4.4**	**6.8**	**10.8**	**14.3**	**14.8**	**17.2**	**4.1**	**6.9**	**10.2**	**0.9**	**1.6**	**1.8**	**2.8**	**4.2**	**6.7**	**0.5**	**1.1**	**1.6**
Total Underground		**13.3**	**13.1**	**13.5**	**1.3**	**3.8**	**9.4**	**13.6**	**13.2**	**13.1**	**1.4**	**4.1**	**9.3**	**0.4**	**0.7**	**2.1**	**0.9**	**3.0**	**6.3**	**0.0**	**0.4**	**0.9**
Total		**28.0**	**27.8**	**31.5**	**5.7**	**10.6**	**20.2**	**27.9**	**28.0**	**30.3**	**5.5**	**11.0**	**19.5**	**1.3**	**2.3**	**3.9**	**3.7**	**7.2**	**13.0**	**0.5**	**1.5**	**2.5**

Figures in the table above are subject to rounding and therefore totals may not add up.

(1) Mine production is the total production from that mine for the whole year regardless of ownership of that mine.

(2) Attributable production is that part of mine production in which the Enex Group had an economic interest at the relevant time. It therefore excludes production attributable to minority interests in controlled subsidiaries and the interests of joint venture partners.

(3) Total mine sales is equal to the total sales from that mine for the whole year regardless of ownership of that mine.

(4) Attributable sales is that part of sales from a particular mine in which the Enex Group had an economic interest at the relevant time. It therefore excludes sales attributable to minority interests in controlled subsidiaries and the interests of joint venture partners.

(5) Cook is excluded as it is classified as an investment.

(6) The Ravensworth Group mines were acquired by the Enex Group on 13 March 2002. Consequently, there is no attributable production or attributable sales for 1999, 2000 or 2001. However, mine production and total mine sales for the Ravensworth Group mines have been included.

Minarco is satisfied that the Enex Group's production forecasts are realistic and achievable.
Minarco found that the Enex Group's portfolio of coal mines includes most of the highly productive underground coal mines in New South Wales.

For example, South Bulga has been consistently one of the mines with highest productivity in Australia for the last five years. Minarco is of the opinion that the forecast production and employment levels over the next five to 10 years will maintain or enhance the Enex Group's position as a high productivity underground coal producer.

Opencut productivity for the Enex Group's coal mines based on total material movement is generally in line with the industry average for dragline operations, but better than the industry average for truck and shovel operations.

In Minarco's opinion:

- the Enex Group has established a management culture focused on improving productivity;
- further productivity gains may be achieved in opencut operations; and
- the Enex Group's underground coal mine productivity reflects its expertise in this method of mining. This is particularly significant for longer term business planning. Coal mining will become increasingly reliant upon coal resources that can be most profitably recovered through this method as opencut mining costs increase due to rising stripping ratios.

2.4.3 Management

During the conduct of this review, Minarco project team members were in regular contact and have held numerous discussions with all levels of the Enex Group's management. Based on this contact, Minarco is satisfied that:

- the Enex Group has established a capable management team at each of its coal mines;
- mining contractors employed by the Enex Group subsidiaries are reputable and competent; and
- coal mine management understands the key drivers and risks at each coal mine and has developed credible mine operation plans that address these issues.

A technical services group within the Enex Group coordinates mine planning. This group comprises business development, geological, mining engineering, environmental management and community liaison functions. Geological and mine planning functions are maintained at each coal mine and supplemented by outside consultants as required. Each coal mine maintains modern computer-based software for mine planning. A key synergy identified by Minarco was the Enex Group's implementation of standard mine management and accounting software at all coal mines. This assists consistent, standardised, reliable management reporting throughout the Enex Group.

2.4.4 Health and safety

Minarco reviewed health and safety management systems and their implementation. Minarco found that an executive safety committee sets health and safety management policy within the Enex Group. The Enex Group has appointed a group safety manager responsible for implementing overall safety strategy and safety management systems.

Direct health and safety responsibility rests with line management and, as is essential in the effectiveness of any system, relies on workforce involvement.

The Enex Group undertakes regular audits (internal and external) at each coal mine. These audits monitor and identify any improvement needed within the safety management system at each coal mine.

As noted above, the Enex Group requires independent operational and safety audits at each coal mine. Wherever these audits identify shortcomings, there is an auditable process in place for rectification and ongoing improvement in the standard of coal mine operations and safety. This process of ongoing audit and improvement is fundamental to a robust, effective and continuously maintained health and safety management system.

Safety performance in 2000 (expressed as the lost-time-injury-frequency-rate) for the Enex Group coal mines is generally in line with the average for the New South Wales coal industry.

2.4.5 Coal processing

Minarco observed that all export operations within the Enex Group's coal mines treat ROM coal through coal handling and preparation plants ("CHPPs").

These plants are mostly located adjacent to mining operations. ROM coal is crushed and screened at a number of coal mines to meet domestic requirements.

Minarco found that the CHPPs incorporate generally well maintained equipment and utilise a range of systems including jigs, cyclones, dense media baths, spirals, froth flotation and thickeners.

Typically, product yield from the operations ranges from 100% for by-passed and/or crushed domestic product to 56% for washed products and average approximately 70% overall.

In Minarco's opinion, coal processing is one of the Enex Group's strongest technical strengths through well managed coal product quality and CHPP yield budgeting. Uniform coal testing procedures are now being introduced throughout the Enex Group's coal mines. The benefits of these procedures are already manifest in accurate plant yield and product ash specifications.

2.4.6 Transport and port

The Enex Group transports most of its product coal from the Hunter and Newcastle Coalfields by rail to the port of Newcastle for export. The Ravensworth Group mines transport all product coal by overland conveyors directly to the local Macquarie Generation power stations located approximately 12 kilometres from the mines. Access is also available to rail loading facilities for Ravensworth East.

The Enex Group transports a minor component of its coal by rail to Port Kembla for export or by road to domestic power stations in the Newcastle and Lithgow areas. Existing infrastructure is well established and reliable. The common transport chain and production of similar coal types enables significant blending opportunities for these operations.

Both rail and port infrastructure are in the process of being upgraded to increase Newcastle's export capacity. The rail system is owned by Rail Infrastructure Corporation, a statutory state-owned corporation of the New South Wales Government.

Importantly, the Enex Group is a major stakeholder of Port Waratah Coal Services Limited (through the shareholding of its subsidiaries in Newcastle Coal Shippers Limited, a major shareholder in Port Waratah Coal Services Limited). Consequently, the Enex Group is involved in the operation and direction of a key part of its supply chain to export markets.

2.5 Environmental issues and management

Minarco found that the Enex Group's coal mines have well developed environmental management systems generally based on ISO 14000 series standards. A third party audits these systems to ensure common high environmental standards throughout the Enex Group's coal mines. All coal mines were inspected as part of this review. These inspections found:

- a high level of environmental awareness among senior Enex Group and coal mine staff;
- clear identification of significant environmental issues;
- board-level reporting;
- active resolution of identified issues which may have material implications for mining; and
- a high standard of house-keeping.

Minarco found that the Enex Group's management was aware of relevant environmental issues identified during the preparation of the CPR. Generally, sufficient resources have been allocated to address these issues. These are not likely to affect adversely current budget forecasts.

2.6 Statutory authorisations

Minarco reviewed statutory authorisations for coal mines and, where sufficiently advanced, projects. The following statutory authorisations were viewed:

- mining leases and approvals under the Mining Act 1992;
- development consents under the Environmental Planning and Assessment Act 1979; and
- environment protection licences under the Protection of the Environment Operations Act 1997.

The Enex Group currently holds all necessary leases and licences to cover exploration and mining activities. A summary of the status of the mining leases and authorisations is set out in the following **Table 2.5**.

Table 2.5 – Summary of mining leases and authorisations

Colliery holding	Mining leases	Expiry date	Status
Baal Bone	CCL749	2010	Current
	CL391	2013	Current
	ML1389	2017	Current
	ML1302	2013	Current
	MPL261	2011	Current
Bulga Complex[1]			
Saxonvale	CL224	2002	Current
Saxonvale	ML1430	2002	Current
Bulga	CL372	2012	Current
South Bulga	ML1328	2014	Current
South Bulga	ML1363	2016	Current
SE Extension	ML1494	2006	Current
SE Extension	ML1491	2022	Current
SE Extension	ML1490	2022	Current
	CL219	2022	Current
	A447	2001	Renewal lodged
	A450	2003	Current
	EL5277	2002	Current
	EL5461	2003	Current
Cumnock	CL378	2008	Current
	CL392	2013	Current
	ML1300	2014	Current
	ML1325	2014	Current
	ML1327	2013	Current
	ML1421	2018	Current
	MPL311	2014	Current
	ML1373	2014	Current
	ML1393	2008	Current
	A364	2006	Current
	A385	2006	Current
	ML1502	2022	Current
Glendell	CL358	2011	Current
	MPL343	2011	Current
	ML1410	2020	Current
	ML1476	2021	Current
	Pt CL382 (sublease)	2012	Current
Liddell	CL708	2002	Renewal lodged
	PLL862	2012	Current
	PLL863	2012	Current
	ML1180	2012	Current
	ML1313	2008	Current
	ML1314	2012	Current
	ML1346	2015	Current
	ML1407	2017	Current
	ML1408	2017	Current
	ML1423	2018	Current
	CL709	Novacoal lease[2]	Current
	PLL481	Novacoal lease[2]	Current
	PtCL378 (sublease)	Cumnock lease	Current
	A394	18 December 2001	Renewal lodged
Mount Owen	A423	2004	Current
	A429	2004	Current
	CL 383	2012	Current
	ML1355	2015	Current
	ML1419	2012	Current
	ML1453	2020	Current
	CL 715	2009	Current

Table 2.5 – Summary of mining leases and authorisations (continued)

Colliery holding	Mining leases	Expiry date	Status
Running Stream	A170	2002	Current
	A208	2002	Current
	A321	2002	Current
	A412	2002	Current
Ulan	CCL741	2007	Current
	MPL315	2014	Current
	ML1341	2015	Current
	ML1365	2014	Current
	ML1366	2014	Current
	ML1467	2021	Current
	ML1468	2021	Current
	A309	2006	Current
United	CCL775	2012	Current
	A444	2006	Current
Togara North[3]	MLA 70149	Unlimited	Approval pending (early 2002)
Macquarie Coal Joint Venture (West Wallsend/Westside/Teralba /Cardiff Borehole/Mitchells Flat)	ML1451	2020	Current
	ML1438	2020	Current
	ML1336	2014	Current
	ML1258	2000	Renewal lodged
	CCL760	2006	Current
	CCL718	2010	Current
	CCL725	2010	Current
	CL532	2018	Current
	MPL323	2005	Current
	PLL153	2004	Current
	Part ML1459	2017	Current
	Part CCL774	2002	Current
	Part CCL727	2007	Current
	Part CCL764	2001	Current
	A253	2003	Current
	A317	2001	Renewal lodged
	EL4427	2003	Current
	A368	2002	Current
	MLA104		Approval pending (early 2002)
	MLA193		Southern Development Application due for submission in March 2002
	ML1309	2014	Current
Cook[3]	ML1779		
	ML1799		
Narama	CL580	2002	Current
	CL380	2012	Current
	CCL 739	2008	Current
	CCL 723	2003	Current
	ML1357	2015	Current
Ravensworth East	ML1415	2020	Current
	ML1475	2021	Current
Ravensworth West	MLA91		Application lodged
	EL5297		
	ML1393 (Cumnock)[4]		

1. Bulga Complex includes Beltana.
2. Leases which Liddell has permission to use for tailings and rejects disposal, held by Novacoal Australia (wholly-owned by Rio Tinto).
3. Bowen Basin operations and projects are not included in the financial assets of the Enex Group and therefore no review of mining titles has been undertaken.
4. Ravensworth West has been allocated the Bayswater seam overlying the Cumnock mine. This area, including EL5297, are incorporated in the lease application MLA91.

Terms:		
	A – Authorisation	ML - Mining Lease
	CCL – Consolidated Coal Lease	MLA – Mining Lease Application
	CL – Coal Lease	MPL – Mining Purposes Lease
	EL – Exploration License	PLL – Private Lands Lease

Mining companies in Australia are required by law to submit Mining Operations Plans ("MOPs") and Annual Environmental Management Reports ("AMERs") to the Department of Mineral Resources ("DMR"). The MOP outlines plans for mining and rehabilitation over a period of between three and seven years and identifies the costs associated with the rehabilitation of the site. The AMER reports the annual progress in relation to the MOP.

The Enex Group has submitted all the required MOP and AMER and has lodged the necessary securities with the DMR. Additional securities are in the process of being negotiated as part of the regular review of the rehabilitation costs undertaken during the MOP process.

Individual mines establish provision for rehabilitation liabilities by accruing a rehabilitation provision per tonne, by obtaining bank guarantees, or by a combination of these methods. Rehabilitation provisions are referred to as securities and are specified in the mining leases or during the MOP process. The Enex Group's security deposits for its rehabilitation liabilities are as follows in **Table 2.6.**

Table 2.6 – Summary of security deposits

Colliery Holding	Security (A$)	Rehabilitation provision accruals (A$)
Baal Bone	1,975,500	1,500,000
Bulga Complex	8,920,000	5,479,500
Cumnock	3,974,000	415,000
Glendell	77,625	–
Liddell	3,824,000	3,232,000
Mount Owen	11,971,500	7,090,600
Running Stream	30,000	–
Ulan	4,322,000	4,568,905
United	959,000	1,008,250
West Wallsend / Westside / Teralba	2,458,500	1,475,000
Ravensworth	15,533,250	10,400,108
Total	**54,045,375**	**35,169,363**

The security amounts shown above are based on the Enex Group and the DMR's estimates for the costs of complete rehabilitation. If the mines continue to operate in accordance with the proposed mine plans, the rehabilitation expenditures will be spread throughout the life of the mines.

In Minarco's opinion:

- appropriate statutory authorisations are in place for each coal mine and relevant project;
- management is taking appropriate steps to maintain statutory authorisations for its coal mines and to obtain, where needed, new statutory authorisations for assets;
- the coal mines are operated in accordance with statutory authorisations and are not in material breach of those statutory authorisations; and
- nothing found during the preparation of the CPR indicated that statutory authorisations will not be renewed as they fall due.

2.7 Costs

2.7.1 Operating costs

The Enex Group provided Minarco with historical operating costs. These generally covered the period from acquisition by the Enex Group of the relevant coal mine to date.

Future operating cost estimates were provided in the Enex Group forecasts. Additionally, detailed monthly cost forecasts were provided for 2002 and 2003.

Since their acquisition by the Enex Group, most coal mines displayed generally downward cost trends as operational improvements and manning reductions were implemented. In Minarco's review, cost trends within the Enex Group forecasts are consistent with historical costs and reflect the key cost drivers at each coal mine.

In conducting the ITR, Minarco assessed whether operating costs synergies had been, or could be, realised across the Enex Group assets. In Minarco's opinion, operating cost synergies have been and will continue to be, gained through joint purchasing and service agreements (Enex has management dedicated to this role). Further costs synergies will be achieved through increased production levels (thereby lowering unit costs). These savings are reflected in the cost of consumables, service and overhaul agreements and

transport contracts. Additionally, the unit cost of overheads such as head office, marketing and administration have been reduced through the assets being held by the Enex Group (rather than smaller, disparate entities) and increased production.

Coal mining, and particularly underground coal mining, can be affected by geological risks that cause variances from cost forecasts. Minarco's review indicates that the significant operating history of the Enex Group's coal mines supports the operating cost estimates despite these risks. Again, this is supported by the diversity of the assets and the competence of the Enex Group management.

In Minarco's opinion:

- the assumptions used in developing the Enex Group's financial forecasts are reasonable; and
- the operating cost forecasts are realistic and achievable.

2.7.2 Capital expenditure

Minarco obtained detailed capital expenditure estimates from the Enex Group.

These expenditure estimates are planned to support each coal mine and to fund the development of projects and expansions.

Minarco found that:

- capital expenditure for approved projects and coal mine expansions is supported by the appropriate level of feasibility study and engineering design; and
- allowance for medium to longer term project development has been made to a level appropriate for the stage of analysis. As the projects near final approval, the Enex Group plans to undertake more detailed assessment of the project and firm up the accuracy of cost estimates. The capital allowances for project development are considered appropriate.

Most of the coal mines are mature and have an historical cost base on which to estimate ongoing capital expenditure for replacement of major equipment and mine extension. The capital allowances made by the Enex Group in the forecasts are appropriate and are in line with industry trends.

In Minarco's opinion, the Enex Group's capital expenditure forecasts:

- reflect the current condition of equipment and infrastructure;
- allow for replacement of equipment and facilities as required;
- allow for the development of projects and upgrade of operations to bring new production online; and
- are reasonable and comparable with other coal mines in Australia.

2.8 Risks and synergies

Coal mining has inherent risks, which are a function of the geological setting and mining methods. These inherent risks can be mitigated by astute management, although they cannot be totally removed. The Enex Group has minimised the potential impact of these inherent risks to its overall business by acquiring a diverse portfolio of assets. The assets comprise both opencut and underground coal mines and projects over a geographically wide area (within three New South Wales and one Queensland coalfield). The coal mines are both owner and contractor operated.

Again, this spreads the operating risks allowing the Enex Group to focus on core expertise in underground mining with experienced contractors mining most opencut coal mines. This diversity minimises the potential adverse impact of any one event on the assets as a whole.

Minarco has reviewed the risks associated with each of the assets in the Enex Group portfolio and identified a number of issues for each asset. Minarco is satisfied that none of these individual risks presents any significant threat to the assets of the Enex Group because the Enex Group:

- is aware of them;
- has addressed and is continuing to address them through prudent and diligent management; and
- has made appropriate allowance in its cashflow forecasts.

There are significant synergy opportunities available within the Enex Group's operations. In a general sense, these include economies of scale, sharing of expertise and blending synergies, all of which have been discussed elsewhere. The Enex Group has realised these opportunities through:

- a flat management structure with low head office overheads. Minarco observed that the executive management team was aware of issues across the business and spent a significant portion of their available time with site management;
- group-wide rail and port logistics management. The Enex Group manages logistics through its Newcastle office which allows it to ensure, for example, that short-term variations in production at individual mines can be accommodated in meeting export contract obligations;
- group-wide purchasing, particularly for mining consumables;

- improved regulatory liaison with government agencies such as the DMR, Planning NSW (formerly known as the Department of Urban Affairs and Planning), the Department of Land and Water Conservation and the Environment Protection Authority;
- higher profile representation within industry bodies, such as the Minerals Council of Australia; and
- integrated production and marketing allowing key productivity drivers at each coal mine to be optimised with a focus on the Enex Group's markets.

Synergies also mitigate the potential impact of risk to the Enex Group. In many instances, Minarco found that the Enex Group has taken a conservative view in its mine planning and cost forecasting. This conservatism may reduce the impact on the Enex Group of an adverse event at any individual coal mine and provides upside potential for some projects. Continuing evolution of mine plans and operational performance should see at least some of this potential realised.

2.9 Sales and marketing

Minarco reviewed exploration data, coal quality analysis, coal washability data and preparation plant performance capabilities and concluded that forecast product quality can be achieved for both export and domestic markets.

The quality of the coal produced by the Enex Group is typical for the relevant coalfield. The rank of the coal is medium to high volatile bituminous. Coal mines have the flexibility to produce to a broad range of specifications by controlling the seam mined, the mining horizon and washplant settings. The majority of export coal is shipped through the port of Newcastle, which also allows the Enex Group to blend products from various coal mines to meet customer specifications.

Domestic thermal product is typically characterised by high ash and an energy content of 20 to 26 mega joules per kilogramme on an air dried basis (adb). Export thermal product has a typical ash content of 12% to 16% (adb) and an energy content of 28.5 to 29.0 mega joules per kilogramme (adb). Semi-soft product has a low ash content of approximately 9% (adb) and maximum fluidity of between 100 to 1,000 dial divisions per minute.

All products are characterised by low sulphur content, which is less than 1% and typically less than 0.6%.

2.10 Valuation of reserves

2.10.1 Methodology and assumptions

Each of the coal mines and projects that contribute to the Enex Group's cashflow forecasts have been valued separately. Projects which do not contribute to the Enex Group's cashflow forecasts have not been valued. The included mines and projects have been valued using discounted cashflow methods. The cashflows used are those provided by the Enex Group in their LOM schedules as modified by Minarco.

Coal prices used in the valuation were derived from independent forecasts produced by the McCloskey Group. The base case forecasts, before any adjustments for the impact of assumed forecast coal sector productivity improvements, are illustrated below.

Nominal FOB coal price		2002	2003	2004
Australian export thermal coal price[1]	US$/t	29.4	30.5	33.0
Australian semi soft coal price	US$/t	34.9	35.7	38.5
US$/A$		0.54	0.61	0.63

[1]Based on a weighted average of spot and contract sale prices. Contract prices are net of a US$1.50 per tonne discount.

The key valuation assumptions are as follows:

- cashflows have been discounted mid-year;
- the valuation is carried out on nominal post-tax cashflows;
- cashflows have been allocated to Proved and Probable Reserves and valued separately;
- the discount rate for base case Proved and Probable Reserves is 9.5% nominal;
- coal prices are derived from independent forecasts received from the McCloskey Group;
- the A$/US$ exchange rate has been based on consensus forecasts;
- plant has not been valued separately. As the plant and equipment is an integral component in the generation of the cashflows used to estimate the value of the reserves, and the coal mines and projects have in general long lives, the value of the plant and equipment is therefore included in the reserve value. Any residual value is not considered to be material; and
- both operating costs and coal prices were adjusted to reflect the impact of assumed forecast productivity improvements in the coal sector. These adjustments equate to an approximate 2.5% per annum reduction in both operating cost and coal prices.

2.10.2 Valuations

Based on the methodology and assumptions set out in Section 2.10.1, a summary of the Net Present Value ("NPV") valuation carried out by Minarco for a range of nominal discount rates is included in **Table 2.7**.

Table 2.7 – Summary of NPV valuation

Nominal discount rate	NPV (US$ millions)
+2%	926
+1%	976
9.5%	1,034
-1%	1,097
-2%	1,167

Table 2.8 shows the total attributable value estimated for both Proved and Probable Reserves.

Table 2.8 – Base case valuation of attributable reserves

	Proved Reserves (US$ millions)	Probable Reserves (US$ millions)	Total Reserves (US$ millions)
Base case valuation	624	410	1,034

2.10.3 Sensitivity analysis

The values of coal mines and projects have been tested for sensitivity to movements in the key parameters of operating cost, production, capital cost, A$/US$ and coal price exchange rate.

- **Operating costs** – Forecast operating costs are supported by operating history and do not include many of the synergies expected to be realised through the group's increased purchasing power and therefore a 5% sensitivity test is considered appropriate.
- **Production** – coal mines can be subject to relatively large short-term production variations from plan. However, the likelihood of long-term variation is largely mitigated by the Enex Group's portfolio of assets, which reduces the impact of poor performance from any one asset and also allows production to be made up from other assets. A sensitivity of 10% is considered appropriate.
- **Capital cost** – the Enex Group have completed detailed capital cost forecasts. These forecasts, whilst appropriate and not likely to vary much in the short-term, may be subject to variation in the medium to long-term. Therefore a 25% sensitivity is considered appropriate.
- **Exchange rate** – the coal mines costs will be in A$ whilst export revenues will be in US$. Historically there has been correlation between the A$/US$ exchange rate and US$ export coal price. This correlation has weakened in recent years, however the prominence of Australian export coal trade will ensure at least some correlation remains. A 5% A$/US$ exchange rate sensitivity is considered appropriate. The sensitivity relates only to conversion of US$ revenues to A$ and does not affect capital costs which can have a considerable US$ content.
- **Coal price** – historically export coal prices have been highly variable with the variability largely driven by high barriers to industry entry and exit and a relatively inelastic demand. Many Australian producers had the option of selling their coal on either the export or domestic markets. This has resulted in a level of correlation between movements in export and domestic prices. Recent international consolidation of coal mine ownership is likely have some influence on coal price stability as major producers endeavour to increase supply elasticity. The ability of suppliers to achieve this stability is yet to be tested fully. A 10% sensitivity is considered appropriate for export prices. As domestic sales are mostly under contract, prices have not been changed.

A summary of the effect of sensitivity of the valuation of reserves to these variables is included in **Table 2.9.**

Table 2.9 – Sensitivity analysis of attributable reserves valuation

	Base case total value (US$ millions)	Operating cost (+5%) (US$ millions)	Production (-10%) (US$ millions)	Capital cost (+25%) (US$ millions)	A$/US$ Exchange rate (-5%) (US$ millions)	Export coal price (-10%) (US$ millions)
NPV Valuation	1,034	954	817	997	978	693

2.11 Summary of conclusions

Minarco has reviewed each of the assets in the Enex Group portfolio and has undertaken a valuation of the operating assets included in the Enex Group's cashflow forecasts. Minarco concludes from this review that:

- the geological and geotechnical understanding of the Enex Group, together with hazard identification, is of a sufficient level to support short, medium and long-term planning as appropriate;
- the mine plans appropriately reflect geological and geotechnical understanding and account for predicted mining hazards;
- the Enex Group's mining equipment (either in place or planned in the capital forecasts) is suited to its mine plans and supports the production levels forecasted;

- coal handling and preparation plants and other infrastructure are capable of supplying appropriate quality products to satisfy the export markets at the forecast volumes and can also supply domestic markets;
- environmental issues are being well managed and there are no foreseeable issues that could significantly impede production;
- the assumptions used in estimating both capital and operating costs are appropriate and reasonable;
- capital and operating costs used in the financial models reflect the mine plans, development and construction schedules and the forecast production levels;
- key risks identified by Minarco are understood by management and appropriate action to mitigate these risks has been taken. Further, the mine plans and cost forecasts appropriately account for these risks; and
- the drivers of the production and cost forecasts are understood by management and are receiving the management focus required.

Minarco is of the opinion that the Australian coal assets of the Enex Group:

- represent a significant component of the Australian coal industry;
- demonstrate diversity via:
  - a spread across four coal mining districts;
  - production of a range of coking and thermal products serving both export and domestic markets;
  - export from three export ports; and
  - production from both underground and opencut operations, with a mix of owner and contractor operations.
- have mine layouts over areas of Measured and Indicated Resources which generate forward schedules in the range of 10 to 20 years for most operations;
- have significant Inferred Resources which may further extend schedules after the appropriate level of exploration, testing and studies have been undertaken to estimate further reserves;
- have a total value of Proved and Probable Reserves of approximately US$1,034 million with 60% of this value associated with Proved Reserves. This value does not include the resources contained within other projects held by the Enex Group; and
- that the value of the assets is most sensitive to changes in coal price with a 10% reduction in export coal price decreasing reserve value by over 33% to US$693 million.

3. Summary of coal mines and projects

This section of the CPR provides an overview of each of the coal mines and projects forming the assets of the Enex Group which have JORC Code compliant reserves. Refer to **Table 2.4** for mine production and attributable production.

3.1 Oakbridge Group

Through its ownership of Enex Oakbridge Pty Limited (formerly GC Coal Company), the Enex Group holds a 66.5% interest in Oakbridge Pty Limited, 48% of which was purchased from a subsidiary of Phelps Dodge Corporation in March 2000, with a subsequent rights issue in March 2001 increasing this to the current level.

Oakbridge Pty Limited has interests in four coal mines and one project grouped as follows:

- South Bulga and Beltana No.1 underground and the Bulga opencut through the Bulga Joint Venture (where Saxonvale Coal Pty Limited, a subsidiary of Oakbridge, is a 87.5% participant and Nippon Steel Australia Pty Limited is a 12.5% participant). These assets form the Bulga Complex which is located in the Hunter Coalfield of New South Wales, about 18 kilometres south of Singleton. The Beltana No.1 underground coal mine is under development and due to replace South Bulga on its closure in March 2003. Bulga Coal Management Pty Limited (a 100% subsidiary of Oakbridge) manages and operates the Bulga Complex under an agreement with the joint venturers;
- Baal Bone through The Wallerawang Collieries Limited (Oakbridge, 95% and Sumitomo Corporation, 5%); and
- Running Stream project (Oakbridge, 100%).

3.1.1 Bulga opencut

Description

The coal mine is a large scale opencut. Mining commenced in 1981. Coal is mined from two opencut pits (the Bulga pit in the east and the Whybrow pit in the west) and is transported by truck to a receival area, then to the adjacent Bulga washplant via conveyor where coking and thermal coal products are prepared for export through the port of Newcastle.

Geological characteristics

The Bulga opencut comprises a series of pits developed along the subcrop of seams in the Jerrys Plain Subgroup. Operations commenced in the Deep Pit in 1981 progressed to the Whybrow pit in 1989 and lastly the Bulga Pit in 1993.

Currently the Whybrow Seam is mined from the Whybrow pit and all seams from the Redbank Creek Seam to the Woodlands Hill Seam are mined from the Bulga pit. The coal resources are located on the gently west-dipping western limb of the Mt Thorley Monocline which limits development of mining to the east because of the steep dips in the area of the monocline axis.

The coal seams deepen towards the west and there are very few faults or other structural features, which have been identified during the exploration programme that have the potential to disrupt mining. The coal seams are reasonably consistent in thickness and quality and because the open cut has been intensively explored, the nature of seam splits, seam thinning or variations in quality is well defined.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**) about 18 kilometres south of Singleton as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figures 3.1** to **3.4** show the location of mining areas, lease boundaries and distribution of both opencut and underground resources for the coal seams targeted for extraction.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. In Minarco's opinion, there are sufficient reserves to support the planned mine life of 11 years.

Long-term prospects

The Bulga Complex has a very large resource base. The resources include both opencut and underground resources, some of which can be recovered by either method. The current mine plan assumes the Bulga opencut will operate until 2013.

Mining and processing

The current mining operations are in the Whybrow and Bulga pits. The Whybrow pit targets the Whybrow Seam and the Bulga pit targets all seams from the Redbank Creek down to the Woodlands Hill. The new mine plan focuses on extending and increasing the strike length of the Bulga pit. The dragline has worked and will continue to work intermittently in the Whybrow pit to ensure the highwall is progressively available for the Beltana No.1 underground coal mine (discussed below). The current mine plan assumes the opencut will operate until 2013 when its production will be replaced by production from the complex's second longwall unit.

The opencut operations have consistently produced more than 6 million tonnes per annum ROM which will increase as the pit room extends in the Bulga pit.

The Bulga CHPP processes production from all of the Bulga complex's operations. The facilities include ROM receival and stockpile facilities, a two-module dense medium and spirals washing plant, product stockpile facilities and a train loading system. The CHPP capacity supports the mine production schedules for the coal mines that it services.

3.1.2 South Bulga underground

Description

South Bulga underground is part of the Bulga Complex. Mine development commenced in 1992 followed by longwall mining in 1994.

Coal is mined by a longwall extraction unit supported by continuous miner development units. Coal is transported from the mining units to the surface by a series of underground conveyors, then to the Bulga CHPP via an overland conveyor where coking and thermal products are prepared for export through the port of Newcastle.

Geological characteristics

South Bulga workings are limited to the north by the Whybrow Fault, to the east by the hinge line of the Mount Thorley Monocline and by seam deterioration to the south.

The seam mined is the 2.5 metres thick Lower Whybrow Seam which occurs within the Wittingham Coal Measures. In the northern portion of South Bulga, a broad east-west palaeodrainage system has deposited sand lenses within, or scoured out the top of, the seam, locally reducing seam thickness to 1.7 metres.

The dominant cleats to the seam are sub-vertical and strike north and east. The in-seam gas content of the Lower Whybrow Seam increases with depth of cover and distance from deformational structures i.e. faults, monocline hinge lines and anticline axes. Total measured gas contents of up to 7 cubic metres per tonne have been recorded in the deepest part of the mine and gas composition is predominantly methane. The upper and middle plies of the Whybrow Seam separate from the lower plies in a southerly direction. The separation interval increases from 2 metres to 35 metres and comprises predominantly coarse bedded sandstones with strengths of 40 mega pascals to 80 mega pascals. The Whybrow Seam floor is siltstone with a rock strength of 30 mega pascals to 60 mega pascals.

The Redbank Creek Seam is the nearest underlying seam 20 metres to 30 metres beneath the floor of the Lower Whybrow Seam.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**) about 18 kilometres south of Singleton as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figure 3.1** shows the location of the mining area, lease boundaries and South Bulga's resources.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. Minarco is of the opinion that there are sufficient reserves to support the planned mine life of 13 months.

Long-term prospects

It is improbable that the mine life will be extended beyond the current reserves.

Mining and processing

South Bulga underground mine has been consistently one of Australia's highest productivity underground coal mines and has recently produced at the typical rate of 4 million tonnes per annum ROM. This level of performance is forecast to continue for the remaining mine life. The mine has recently received approval for a lease extension which increases Recoverable Reserves and extends the mine life to March 2003.

South Bulga has recently completed all the main development for the mine and is now operating a single development unit. This unit is developing the final longwall gateroad which is due for completion in July 2002. The last longwall panel, E7, is scheduled to complete extraction in March 2003.

The Bulga CHPP processes all production from South Bulga.

3.1.3 Beltana No.1 underground project

Description

Beltana No.1 underground is a developing coal mine. Development commenced in August 2001. The mine will utilise longwall extraction supported by continuous miners for development to recover coal from an area north-west of South Bulga underground, immediately west of the Whybrow pit.

Longwall panels are being developed as a "punch mine" directly from the opencut highwall of the Bulga opencut Whybrow pit.

Coal will be transported from the mining units to the surface by a conveyor and then to the Bulga CHPP via a series of overland conveyors. Thermal products are prepared for export through the port of Newcastle. The mine is scheduled to commence production in June 2003 following the closure of South Bulga underground in March 2003.

Geological characteristics

The seam of economic interest is the Whybrow Seam within the Wittingham Coal Measures. Mining will target the Lower Whybrow Seam which is the lowest of three Whybrow Seam horizons.

The seam is generally 2.6 metres to 3.2 metres thick with an area in the north substantially thicker where the lower and middle horizons coalesce. The strata dips gently towards the west.

The planned mine area appears to be free of major structural disturbance and igneous intrusions. The in-seam gas content of the Lower Whybrow Seam is uniform across the Beltana target area. Total measured gas contents are less than at South Bulga, and unlike South Bulga, gas composition is predominantly CO_2 with negligible methane present. Sandstone is the main unit in the roof strata and the seam floor is siltstone, with rock strengths ranging from 20 mega pascals to 50 mega pascals. The Redbank Creek Seam is the nearest underlying seam, 20 metres to 30 metres below the floor of the Lower Whybrow Seam.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**) about 18 kilometres south of Singleton as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figure 3.1** shows the location of the mining area, lease boundaries and Beltana No.1 resources.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. There are sufficient reserves to support the planned mine life of five to six years.

Mining and processing

The Beltana No.1 underground will recover coal from the same mining horizon as the adjacent South Bulga underground and will utilise South Bulga's longwall unit. Therefore, this project will benefit from the operating experience at South Bulga which has consistently achieved 4 million tonnes per annum ROM. Beltana will also benefit from operational simplicity providing improved efficiencies. All eight planned longwall panels will be developed directly from the highwall of the Whybrow pit opencut, which will be mostly dormant for the life of the Beltana No.1 coal mine.

Exploration adits from the opencut highwall were commenced in August 2001. This work is being carried out by contractors. Development consent was received in December 2001.

Production will be processed at the Bulga CHPP. Production will initially be transported by truck to these facilities and will ultimately be transported by a series of overland conveyors integrated with the current South Bulga overland conveyor.

3.1.4 Bulga long-term underground project

Description

The Bulga long-term underground project is part of the Bulga Complex. The project will employ one longwall extraction unit supported by continuous miner development units. These will recover coal from a number of coal seams which will be accessed directly from opencut highwalls. Coal will be transported from the mining units to the surface by a conveyor and then to the Bulga CHPP via a series of overland conveyors. Coking and thermal products will be prepared for export through the port of Newcastle.

Geological characteristics

The 20 year plan targets three seams of economic interest, the Blakefield, Glen Munro and Woodlands Hill seams. There is also potential for mining in the deeper Mount Arthur, Piercefields and Vaux seams. As with Bulga's other target seams all these seams occur within the Wittingham Coal Measures. Measured and Indicated Resources of 647 million tonnes have been identified in the six seams with mining potential.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**) about 18 kilometres south of Singleton as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6. Figures 3.1** to **3.4** show the location of mining areas, lease boundaries and distribution of underground resources for the coal seams targeted for extraction.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**.

Long-term prospects

Following the completion of mining in the Beltana No.1 area the mining equipment will be relocated to lower coal seams in the Bulga pit classified as part of the long-term underground project. There is significant potential for the life of underground reserves to extend well beyond 20 years.

Mining and processing

Scheduled production will commence following closure of Beltana No.1 coal mine in 2006. A second longwall operation will commence following completion of opencut mining in 2013. The two longwall units will then extract the reserves in an upper to lower seam sequence. Each longwall operation is forecast to produce approximately 5.0 million tonnes per annum ROM with saleable production between 3.8 million tonnes per annum and 4.0 million tonnes per annum depending on the seam and relevant CHPP yield. Improved longwall productivity is realistic over the interval prior to developing this mine with production expanding from the current 4 million tonnes per annum ROM being achieved.

3.1.5 Baal Bone underground

Description

Baal Bone is located in the Western Coalfield of New South Wales. The mine commenced operation in 1983. Coal is mined by a longwall extraction unit supported by continuous miner development units. Coal production is transported by a series of underground conveyors to the surface, then to the CHPP where predominantly thermal products are prepared for export through Port Kembla and domestic sales to local power stations.

Geological Characteristics

At Baal Bone, the Illawarra Coal Measures are about 100 metres thick and include the full sequence from the Katoomba Seam down to the Lithgow Seam.

The coal resources at Baal Bone are all in the Lithgow Seam. The working section of the Lithgow Seam is between 2.2 metres and 2.6 metres thick in the areas planned for mining.

To the north-west, this seam splits and thins near the mining lease boundary. In the areas of higher cover up to 270 metres, the Triassic sandstones exist over the coal measures. Around the pit top the coal is quite shallow and has in the past been mined by opencut methods.

The regional dip of the Lithgow seam is about 2 degrees to the north-east. Locally the seam structure is affected by anticlinal or synclinal flexures that result in steeper dips over several pillar lengths. Zones up to 40 metres wide of both normal and reverse faults displace the seam by up to 1 metre and can create difficult mining conditions in those zones. A prominent structural north-south trending feature, the Cox's River Lineament, has historically determined the eastern limit of mining. Between this structure and the Wolgan Valley escarpment there is an area up to 1 kilometre wide of coal resources that lie within the Baal Bone mining lease.

The in-situ ash of the working section is generally in the range of 15% to 20% and the variation is mostly due to changes in the thickness of stone partings in the seam.

The coal is beneficiated to various ash levels either for export or for domestic energy coal. The future reserves and resources have generally similar coal properties to the coal produced over the last 10 years.

Remaining resources within the Lithgow Seam are in three underground areas and two small opencut areas.

Maps and plans

The mine is located in the Western Coalfield (see **Figure 2.1**) about 32 kilometres west of Lithgow and about 130 kilometres from Sydney as illustrated in **Figure 2.4**. The typical stratigraphy is shown in **Figure 2.8**. **Figure 3.5** shows the location of mining areas, lease boundaries and distribution of resources.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. There are sufficient reserves to support the planned mine life of four to five years.

Long-term prospects

Further exploration, testing and studies may delineate further potential reserves to the north, south and east of the current mining area.

Mining and processing

Coal is currently mined by longwall extraction from longwall 21 and development of longwall 22 gate roads. Planned mining is based on continued development and extraction of longwall panels 22 to 24 in the current mining area.

This is scheduled for approximately four to five years production. During this time, further exploration, testing and studies will be carried out in the northern and south-eastern areas. Subject to satisfactory results from this work, additional reserves may be defined thereby allowing extension of the mine life. Mine operation in the northern area will require the application of alternate methods of work to restrict the impact of subsidence on prominent surface features.

Conveyor equipment upgrades and larger longwall panels have assisted in production gains over the last 12 months. The forecast operating plan is based on maintaining the 2001 production level of 3 million tonnes per annum ROM.

The Baal Bone CHPP facilities consist of ROM and product coal stockpiling and handling facilities, a dense medium and spirals washplant and train loading facilities. The washplant has a capacity of 720 tonnes per hour which is sufficient to support the mine production schedule.

3.1.6 Running Stream project

Description

The Running Stream project is located in the Western Coalfield of New South Wales.

The level of geological data is not adequate to allow the preparation of a detailed mining study and the Enex Group has recently approved expenditure of A$1.8 million for a programme of exploration, testing and studies. This is expected to enable the granting of a mining lease by October 2002.

Based on the current data there is a reasonable possibility that the proposed detailed mining studies may delineate up to 13 million tonnes of product coal suitable for use in the local power stations.

Geological characteristics

The principal seam of economic interest is the Lithgow/Lidsdale Seam. It lies at the base of the 110 metres thick Illawarra Coal Measures. The seam varies from 2 metres to 6 metres thick over the area with thicker sections containing stone bands and higher ash plies. The Lithgow/Lidsdale Seam dips to the north-east at about one in 50. Much of the surface is covered by basalt and several intrusions are inferred. Depth of cover over the Lithgow/Lidsdale Seam is up to 260 metres, but is generally less than 150 metres.

Maps and plans

The mine is located in the Western Coalfield (see **Figure 2.1**) about 35 kilometres north of Mount Piper Power Station, adjacent to the Mudgee-Lithgow railway line as illustrated in **Figure 2.4**. The typical stratigraphy is shown in **Figure 2.8**. **Figure 3.6** shows the location of mining areas, lease boundaries and distribution of resources.

Resource and reserve statement

A summary of resources is included in **Table 2.3.** Measured and Indicated Resources of 86 million tonnes are estimated for the project and an additional 60 million tonnes of Inferred Resources are estimated.

Long-term prospects

The project is currently undeveloped. Should an opencut operation be developed, there may be potential to access underground resources from an opencut highwall.

3.2 Macquarie Coal Joint Venture

The Enex Group holds a beneficial interest in 100% of the issued shares in Oceanic Coal Australia Limited ("OCAL") and through OCAL, in OCAL Macquarie Pty Limited.

These companies are 70% and 10% participants in the Macquarie Coal Joint Venture ("MCJV"). MCJV owns West Wallsend underground, Westside opencut, Teralba underground and Cardiff Borehole underground project. OCAL is the operator of the MCJV.

OCAL also owns Mitchells Flat (100%), an underground/opencut project. The Enex Group purchased its interests in OCAL and OCAL Macquarie Pty Limited and through them in the MCJV in July 1999.

3.2.1 West Wallsend underground

Description

West Wallsend underground coal mine is located in the Newcastle Coalfield of New South Wales. The mine commenced operation in 1969. Coal production is transported from mining units by a series of underground conveyors and to the surface by a drift conveyor. Coal is transported by truck via a private haul road to the Macquarie CHPP where coking and thermal products are prepared for export through the port of Newcastle. Coal is then transported to the port by rail.

Geological characteristics

The seam of economic interest is the West Borehole Seam within the Newcastle Coal Measures. The seam is a convergence of several seams (Nobbys, Dudley, Yard and Borehole Seams) and in areas reaches a combined thickness of more than 6 metres. The working section includes the basal section of the seam that is typically 4.8 metres thick. The seam thins to the west to less than 3.5 metres. The seam dips to the east at about 3 degrees to 4 degrees, with localised areas of steepening and flattening. The seam exhibits consistent trends in terms of thickness and coal quality. A general trend exists at West Wallsend where the seam becomes thinner and coal quality of the working section deteriorates to the west-south-west.

Although there are numerous overlying coal seams, only the basal West Borehole Seam of the Newcastle Coal Measures is economically developed across the holding.

Thickness of cover generally ranges from 200 metres to 150 metres but in parts of the western (Sugarloaf Range) area reaches 350 metres. The immediate floor of the West Borehole Seam is either a hard sandstone or a thin hard shale unit. The immediate roof of the seam is the distinctive Nobbys Tuff (pyroclastic claystone). Faulting and igneous dykes trend south-east to north-west across the colliery holding.

Massive conglomerate channels in the roof strata have the potential to influence longwall production. However, the nature and location of these layers is well defined and detailed management plans are in place to deal with any issues encountered.

Maps and plans

The mine is located in the Newcastle Coalfield (see **Figure 2.1**) about 25 kilometres south-west of Newcastle as is illustrated in **Figure 2.3**. The typical stratigraphy is shown in **Figure 2.7**. **Figure 3.7** shows the location of mining areas, lease boundaries and distribution of resources.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. There are sufficient reserves to support the mine life of approximately 19 years.

Long-term prospects

There are limited long-term prospects beyond the limits of the current mine layout and Recoverable Reserve area.

Mining and processing

Underground workings have been developed towards the south-west of the colliery holding. Longwall panels are currently being developed to the south-east towards the neighbouring Newstan mine boundary. Since 1997, the coal mine has operated in an area where a number of seams have coalesced to allow thick seam longwall extraction at 4.8 metres.

Current mining is extracting longwall 25 and developing longwall 27 and main headings. Relocation of the longwall to longwall 26 will commence in January 2003. The proposed operating plan for the mine includes the reorientation of longwall panels from a north-west to a south-west direction to maximise the resource recovery within the mine boundary and to best accommodate the known and predicted geology.

The forecast operating plan is based on increasing production from 3.3 million tonnes per annum to 4.8 million tonnes per annum ROM coal. This increase will be achieved by an increase in underground conveying capacity which will be commissioned in January 2003. This will facilitate increased equipment availability and productivity. Longer and wider extraction panels that will reduce panel relocations and improve the development to extraction ratio will also facilitate increased productivity.

Coal is processed at the Macquarie CHPP which is located at Teralba 3.5 kilometres from the mine. Coal is transported to the CHPP by truck. The CHPP consists of ROM and product coal handling and stockpile facilities, a two module dense medium washing plant with 1,200 tonnes per hour capacity and train loading facilities. The CHPP capacity exceeds the production demands from West Wallsend.

As mining progresses to the western area, the proportion of thermal coal will increase. Later in the mine life it is proposed to sell some product to local power utilities.

3.2.2 Westside opencut

Description

Westside is a small opencut coal mine located just south of West Wallsend mine's pit-top facilities. The mine commenced operations in 1986.

Geological characteristics

The deposit is relatively small, originally consisting of two pits (north and south) located on ridges separated by a flat valley and creek zone barren of coal. The reserves of the North Pit were exhausted in mid-1999. The South Pit reserves are comprised primarily of the Fassifern Seam. The Great Northern Seam has been worked by underground bord and pillar methods in the eastern part of the South Pit. Mining of remnant pillars within the seam is conducted.

The seams of economic interest are the Great Northern and Fassifern seams within the Newcastle Coal Measures and are separated by the Awaba Tuff, a tuffaceous claystone, typically around 10 metres thick. The Great Northern Seam is between 5.5 metres and 6 metres thick with a raw coal ash that varies between 16% and 26%.

The Fassifern Seam is approximately 8 metres thick of which 5 metres to 6 metres of the seam is selectively mined in several passes. The Great Northern and Fassifern Seams are essentially conformable and lie in a shallow basin structure, with the deepest zones of each seam being located in the south-east of the area. Dips are very gentle between 2 degrees and 5 degrees over most of the mining and potential extension areas, but there is a general steepening on the western and south-western rim of the basin to 14 degrees locally. A north-west trending 4 metres thick dyke, known from the old underground workings in the Great Northern Seam, has been intersected in the Westside opencut. There has been no significant silling or seam alteration beyond a few metres width and being weathered and relatively soft, the dyke is easy to excavate.

Remaining resources within the Great Northern and Fassifern seams are contained in, and south of, the existing South Pit.

Maps and plans

The mine is located in the Newcastle Coalfield (see **Figure 2.1**) about 25 kilometres south-west of Newcastle as illustrated in **Figure 2.3**. The typical stratigraphy is shown in **Figure 2.7**. **Figures 3.8** and **3.9** show the location of previous underground and opencut workings, exploration boreholes and lease boundaries for the Great Northern and Fassifern seams respectively.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. There are sufficient reserves to support the mine life of approximately eight to nine years.

Long-term prospects

There are little long-term prospects beyond the proposed southern extension.

Mining and processing

Hunter Valley Earthmoving Co Pty Limited (a subsidiary of Thiess Pty Limited, a major Australian contracting company) currently conducts mining in the South Pit under contract. This contract expires on 31 December 2002. Overburden is removed by a hydraulic excavator which loads two dump trucks. A bulldozer provides periodic assistance.

All hard overburden is blasted. Coal is mined by a loader which transfers coal into dump trucks. Coal is then transported to the crushing and truck loading facility before being hauled to the local power station via a private haul road.

The operating plan is based on continued mining within the South Pit whilst approvals for the southern extension are sought. The longer term production schedule, based on these approvals being obtained, is to increase production up to 1 million tonnes per annum. The strip ratio for operation in the South Pit averages approximately 2.8 bank cubic metres per tonne, reducing to 2.4 bank cubic metres per tonne in the southern extension. Improved operational performance in extracting coal from old underground workings is also expected.

3.2.3 Cardiff Borehole project

Description

The Cardiff Borehole project is located in the Newcastle Coalfield of New South Wales, about 20 kilometres south-west of Newcastle and 17 kilometres by rail to the port of Newcastle.

MCJV is seeking a mining lease beneath Cockle Creek located between the Teralba and Cardiff Borehole leases. Development consent for this connecting mining lease, which is a pre-condition of the grant of this lease, was obtained in January 2002.

OCAL proposes to mine the Cardiff Borehole reserves by utilising the existing surface facilities and underground infrastructure for the Teralba underground mine. The lease beneath Cockle Creek will, if granted, connect the Teralba lease with the Cardiff Borehole project area.

Geological characteristics

The two seams of economic interest are the Dudley Seam and the Young Wallsend Seam. General seam dip over most of the area is 2 degrees to the south-west, although there is an apparent steepening to 4 degrees near the shoreline of Lake Macquarie. There are two

seam splits that will affect mining called the Nobbys/Dudley split and the "shaly tops' split" which involve easterly divergence of coal plies from the top of the seam and subsequent thinning of the remaining Dudley Seam. Several minor (less than 5 metre) faults and dykes are expected to cross the Cardiff Borehole area. Methane gas content is expected to be higher than that experienced at Teralba and West Wallsend.

Maps and plans

The mine is located in the Newcastle Coalfield (see **Figure 2.1**) about 17 kilometres south-west of Newcastle as illustrated in **Figure 2.3**. The typical stratigraphy is shown in **Figure 2.7**. **Figure 3.10** shows the location of mining areas, lease boundaries and distribution of resources.

Resource and reserve statement

No reserves have been calculated for the project. Indicated Resources of 15 million tonnes and Inferred Resources of 22 million tonnes are estimated for the project.

Long-term prospects

The current status of resources is Indicated and Inferred. The Enex Group has approved expenditure to carry out a feasibility study that should upgrade these resources to Measured and Indicated and allow the conduct of detailed mine planning, which should establish Recoverable Reserves.

Mining and processing

The proposed development plan utilises the existing infrastructure at Teralba coal mine including materials transport and ventilation facilities.

The ability to utilise the existing infrastructure is a significant advantage which reduces the initial capital requirement for the project.

Initial development access into Cardiff Borehole will be gained from existing workings within Teralba coal mine adjacent to the existing pit bottom. The availability of existing facilities significantly reduces development risk. The urban areas and tidal waters overlying the proposed workings will restrict the range of mining methods.

Development consent is required before mining may proceed. The main issue affecting a grant of consent will be subsidence mitigation under an area of urban development principally characterised by detached dwellings. Allowable subsidence will be a determining factor in selecting mine layout and mining methods. Current conceptual planning assumes miniwall or narrow longwall panels. This method has been successfully employed at the adjacent New Wallsend No.2 (formerly Gretley) coal mine beneath similar urban development and is well proved and accepted.

3.2.4 Mitchells Flat project

Description

The Mitchells Flat project is an undeveloped coal resource located in the Hunter Coalfield of New South Wales, about 12 kilometres north-east of Singleton. It is also 15 kilometres by road north-west of the Branxton railway facility, which is itself 56 kilometres by rail from the port of Newcastle. Plans for the development of an underground coal mine and associated infrastructure were approved in 1991.

Since acquisition, the Enex Group has not undertaken a detailed evaluation of the project. Development consent was granted in 1991 (but lapsed in 1996) and a mining lease was granted in 1993.

Geological characteristics

Mitchells Flat coal resource comprises a total of 19 coal seams within the Wittingham Coal Measures. These coal seams are equivalent to the Mount Arthur Bayswater Seam sequence elsewhere in the Hunter Coalfield. Seven of the seams have economic potential. The area is structurally isolated from the remainder of the Hunter Valley Coal Measures in the northern part of a small isolated basin bounded by the Hunter Thrust to the north and north-east and by the West Brook Fault to the west. The coal resources have been identified in two zones a steeply dipping zone possibly amenable to opencut mining methods and a flat lying zone containing possible underground resources that formed the basis of earlier mining studies.

The extent of the flat lying area is limited by the 'steeply dipping zone' to the west and by the 'faulted zone' of the Hunter Thrust in the north. Strata dip towards the south and north-west at approximately 5 degrees, towards a central synclinal structure.

There is significant variation in coal seam and interburden thicknesses throughout the area. Generally, seams become thinner and coal quality deteriorates to the south and thickness of interburden material increases to the south and south-east. The B Seam occurs at depths between 55 metres and 190 metres and the D Seam between 140 metres and 250 metres.

The steeply dipping zone in the west of the mining lease subcrops over an area up to 1.5 kilometres wide with near vertical dips. Seams vary from 2 metres to 7 metres thick and some seams crop out in West Brook.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**) about 12 kilometres north-east of Singleton and 15 kilometres by road north-west of the Branxton railway as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figure 3.11** shows the location of mining areas, lease boundaries and distribution of resources.

Resource and reserve statement

No reserves have been calculated for the project.

Measured and Indicated Resources of 247 million tonnes and Inferred Resources of 25 million tonnes are estimated for the project.

Long-term prospects

Whilst there appears to be opencut potential in the steeper western reserves, no detailed opencut studies have been undertaken. The Enex Group proposes to undertake a preliminary review of opencut potential to define whether a viable opencut operation could be developed. Importantly, the Enex Group has gained extensive experience of similar geological conditions at the Mount Owen coal mine. In Minarco's opinion, this experience supports the viability of opencut mining utilising current operating practices and technology and therefore supports the view that a similar approach may be adopted at Mitchells Flat.

3.3 Liddell Group

The Enex Group purchased Enex Liddell Pty Limited (formerly GA Coal Pty Limited and before that Savage Coal Pty Limited), Gabume Pty Limited and Enex Foydell Limited (formerly GA Minerals Limited and before that Savage Minerals Limited) in July 1999.

Through these companies, the Enex Group holds a 67.5% interest in the Liddell and Foybrook joint ventures, which operate the combined mining leases as the Liddell opencut coal mine. Mitsui Matsushima Australia Pty Limited is the other joint venturer with a 32.5% interest. Enex Foydell Limited and Mitsui Matsushima Australia Pty Limited are also participants in the Glendell joint venture with the same proportionate interests.

3.3.1 Liddell opencut

Description

The Liddell opencut coal mine is located in the Hunter Coalfield of New South Wales. Liddell Coal Operations Pty Limited (a subsidiary of the Enex Group) operates the coal mine under agreement with the joint venturers. The opencut mine commenced operations in 1989.

The coal mine comprises a number of opencut mining areas on several mining leases. Hunter Valley Earthmoving Co Pty Limited conducts mining under this contract. The contractor uses hydraulic excavators and trucks for waste removal and front end loaders for coal mining. Minor production is carried out by highwall augering. Coal is hauled by truck on internal haul roads to the CHPP where it is prepared for export as either coking or thermal coal through the port of Newcastle.

Geological characteristics

Liddell Colliery Holding is located adjacent to the north-eastern margin of the Sydney Basin, within the Hunter Coalfield. The coal seams within the holding are contained in the Foybrook Formation, part of the Vane Subgroup of the Wittingham Coal Measures.

The principal structural feature within the holding is the Camberwell Anticline that trends north-west by south-east, approximately bisecting the area. Regionally the strata dips off the flanks of the anticline; gently to the south west into the Bayswater Syncline and more steeply to the north-east into the Rixs Creek Syncline.

The north-eastern boundary of the lease is sub-parallel to the Hebden Thrust, which is a major low angle fault. There is some low angle thrust faulting that is often largely in-seam within the holding. The area is also affected by sub-vertical normal faulting and igneous dyke emplacement in a predominantly north-east by south-west orientation.

Faults vary in displacement from less than 1 metre to 15 metres and occur both as isolated features and in horst and graben zones (up to 250 metres wide). Dykes also vary from single thin bodies to dyke swarms up to 30 metres wide.

The coal seams of economic interest within the holding, in descending stratigraphic order are the Lemingtons, Pikes Gully, Arties, Liddell and Barrett, seams; all of these horizons except the Barrett (2 metres to 3 metres thick) are split in at least part of the target area.

Seam subcrops are defined by the interaction of structure, topography and depth of weathering (usually 10 metres to 15 metres) but in general trend from north-north-east to south-south-west adjacent to the western edge of the holding. Seam subcrops higher in the sequence step away to the east-south-east. Opencut mining, for all seams from the Pikes Gully (2 metres thick) downwards in the sequence, has occurred over at least part of their subcrop. The Liddell Seam is the thickest (6 metres to 8 metres thick) and is the seam most extensively mined both by current opencuts and past underground workings.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**) about 25 kilometres north-west of Singleton. The location of the coal mine is illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figures 3.12** to **3.16** show the major geological features, old opencut and underground workings, exploration borehole locations, resources and lease boundaries for the target seams.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. There are sufficient reserves to support the mine life of approximately 21 years.

Long-term prospects

The lease areas contain significant coal resources that may be amenable to both opencut and underground methods. Further exploration, testing and studies will be required to define reserves within these areas.

Mining and processing

The short-term objective at Liddell coal mine is to complete satellite pit mining, then concentrate mining in the "South" and "Entrance/Barrier" pits.

Following completion of opencut mining, auger mining will be conducted (if appropriate) and the final void used for either storing water or emplacing preparation plant reject or tailings.

Saleable production forecasts for the next five years range between 2.61 million tonnes per annum and 2.78 million tonnes per annum. The improvement will be achieved by reducing the number of small satellite pits and expanding the main working areas that are closer to the CHPP.

The Liddell CHPP facilities include ROM and product coal handling and stockpiling facilities, a single product dense medium and spirals washplant with a feed capacity of 700 tonnes per hour and rail loading facilities. The CHPP infrastructure has sufficient capacity to support the production schedule.

3.3.2 Glendell project

Description

The Glendell project will utilise opencut mining. It is located in the Hunter Coalfield of New South Wales. The project adjoins the southern boundary of Liddell coal mine and is located south-west of the Mount Owen coal mine.

Geological characteristics

Eight coal seams with opencut potential have been identified within the stratigraphic interval from the Lemington Seams to the Hebden Seam within the Vane Subgroup of the Wittingham Coal Measures. The seams typically range from 0.4 metres to 4 metres thick. The target working sections are the Arties Seam (approximately 4 metres thick), the Upper Liddell Seam (approximately 3 metres thick), the Middle Liddell A Seam (average thickness 2.4 metres) and the Barrett Seam (average thickness 3 metres). The main geological feature, the north-plunging Camberwell Anticline, together with the topography and the depth of weathering, govern the distribution of seams across the lease. The lower seams in the stratigraphic sequence crop out in the south of the lease while seams higher in the sequence crop out in a north-south orientation along each limb of the anticline. The anticline is asymmetrical, with strata on the eastern limb dipping up to 40 degrees to the east and seams on the western limb dipping less than 10 degrees to the west.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**), about 18 kilometres north-west of Singleton as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figure 3.17** shows the major geological features, exploration borehole locations, resources and lease boundaries for the target seam.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**.

Mining and processing

The project will use a dragline and pre-strip truck and shovel methods to remove waste and truck and shovel methods to recover coal from a multi-seam opencut. ROM coal production will be transported from the mine to the Mount Owen CHPP using trucks and a private haul road. At Mount Owen, coking and thermal products will be prepared for export through the port of Newcastle. The Mount Owen facilities will be expanded from 1,200 tonnes per hour to 1,800 tonnes per hour capacity to handle the combined output from the two mines.

Production is scheduled to commence in 2003 from two pits. In the South Pit, where coal will be extracted to the base of the Barrett Seam, truck and shovel operations will expose the upper seams and three passes of the dragline will be required to expose the lower seams down to the Barrett.

In the North Pit, only the upper seams down to the Arties will be uncovered by the dragline. Only limited truck and shovel pre-strip will be required. The project will produce about 5.5 million tonnes per annum ROM coal and 4.0 million tonnes per annum saleable production.

3.3.3 Togara North project

Description

The Togara North project is located in the southern Bowen Basin in Queensland. The project is owned by Togara North Joint Venture ("TNJV"), in which the Enex Group holds a one third interest and management rights. Changes to the TNJV, currently in progress, will result in the Enex Group having a 60% interest in the TNJV.

Geological characteristics

The Pollux Seam is more than 4.5 metres thick in most of MLA 70149, dipping gently to the west-south-west at 2 degrees to 6 degrees at depths of less than 30 metres in the east to less than 300 metres in the west. Tertiary strata 20 metres to 150 metres thick and comprising of clay, sand, lignite and basalt unconformably overlie the coal bearing sequence.

There are numerous widespread normal faults of 2 metres to 20 metres displacement typically oriented north-west, north or north-east. There is little or no evidence of igneous intrusions.

Several exploration programmes have been conducted in the Togara area since the late 1960s. Before 1994, 133 holes were drilled over Exploration Permit for Coal (EPC) 550. The TNJV was granted EPC550 in March 1994.

Since then, three exploration programmes were completed and a feasibility study on opencut and underground mining was completed in 1998. Further holes have been drilled since completion of the feasibility study.

Since 1998, the joint venture has concentrated on an application for a mining lease. This has involved negotiating native title and land compensation agreements which are nearing completion. Tenure over EPC550 has been extended to March 2002. During this extension, outstanding landholder issues should be resolved and MLA 70149 granted. Apart from securing the lease, all other necessary rights have been secured to allow the project to proceed following TNJV commitment.

Maps and plans

The mine is located in the southern Bowen Basin of Queensland (see **Figure 2.1**), about 30 kilometres south of the township of Comet as illustrated in **Figure 2.5**. The typical stratigraphy is shown in **Figure 2.9**. **Figure 3.18** shows the major geological features, exploration borehole locations, resources and lease boundaries for the target seams.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. There are sufficient reserves to support the mine life of approximately 21 years.

Long-term prospects

The project area contains significant resources within the Pollux Seam. Following the feasibility study, a mining strategy was proposed based on the initial development of a small opencut boxcut providing highwall access to an underground operation utilising longwall extraction. This area contains a significant coal resource. Further exploration, testing and studies outside the proposed mining area may delineate further reserves.

3.4 Cumnock

Cumnock No.1 Colliery Pty Limited, the owner and operator of Cumnock coal mine, is a wholly owned subsidiary of Cumnock Coal Limited, a public company listed on the Australian Stock Exchange. The Enex Group owns 84% of the issued shares in Cumnock Coal Limited. The asset comprises the Cumnock underground coal mine and the Cumnock opencut project.

3.4.1 Cumnock underground

Description

Cumnock underground coal mine is located in the Hunter Coalfield of New South Wales about 105 kilometres by rail from the port of Newcastle. The mine commenced operation in the Lower Pikes Gully Seam in 1995. ROM coal production is transported from mining units by a series of underground conveyors to the surface and then by conveyors to the CHPP where coking and thermal products are prepared for export via rail through the port of Newcastle.

Geological characteristics

Seams of economic interest are located in the Wittingham Coal Measures. These are the Lower Pikes Gully Seam, where current mining takes place, and the underlying Upper Liddell Seam, which was previously worked from separate mine entries. The coal strata at Cumnock belong to the Wittingham Coal Measures and range from the Broonies Seam to the Barrett Seam – a stratigraphic interval of approximately 250 metres. Three seams, Lower Pikes Gully ("LPG"), Upper Liddell ("ULD") and Barrett ("BAR") have potential for underground exploitation. The coal resources are located on the western limb of the north-south trending Bayswater Syncline and dip regionally 2 degrees to 3 degrees towards the east.

The Cumnock coal resource occurs in three discrete mining areas (A, B and C) separated by two major north-east trending geological structures; the Davis Creek Fault and the Hunter Valley Dyke. All mining to date has been in Area A on the western side of the Davis Creek Fault, a normal fault downthrown 10 metres to the east. Area B is a north-east aligned corridor approximately 600 metres to

700 metres wide bounded by the Davis Creek Fault and the Hunter Valley Dyke which ranges up to 30 metres thick. Area C is located east of the Hunter Valley Dyke.

Underground bord and pillar mining and several longwall panels within the ULD Seam took place in CL 378 from the 1950's to the early 1990's. Longwall mining of the overlying LPG Seam which averages 2 metres thick is progressing to the south where the depth of cover gradually increases from approximately 80 metres in the north to more than 150 metres in the south. The interburden between the current LPG longwall panels and the mined out ULD Seam is approximately 35 metres.

The LPG and ULD Seams exhibit consistent coal ply trends in terms of their respective thickness and coal quality properties producing a semi-soft coking or thermal export coal. The LPG Seam provides a single working section whereas the ULD Seam comprises a more complex three ply working section that splits and coalesces in the leases. The Barrett Seam thickness is variable because of the splitting/coalescing of its component plies.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**), about 28 kilometres north-west of Singleton and as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figures 3.19** to **3.22** show the extent of mine workings and the mine plan, surface features, exploration boreholes, major geological features, resources and lease boundaries for the four target seams.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. There are sufficient reserves to support the *mine life of approximately nine years.*

Long-term prospects

Additional resources are contained in the ULD and LPG Seams to the east and within the underlying Barrett Seam. Further exploration, testing and studies are required to delineate potential reserves.

Mining and processing

Cumnock underground coal mine was developed from the LPG Seam subcrop at the northern end of the lease. Mining then progressed south-west as a four heading trunk development. Longwall panels extend to the east from these trunk headings. Current mining is completing extracting longwall 18 and developing longwall 19 and main headings.

The operating plan for the coal mine includes the reorientation of trunk development to the east to intersect the Davis Creek Fault and provide access to longwall panels within the fault and dyke bounded block. Once mining in the LPG Seam is complete, interseam drifts will be developed to access the underlying ULD Seam. This will facilitate mining of eight more longwall panels.

Under the forecast operating plan, production will increase from 1.91 million tonnes per annum to 2.27 million tonnes per annum ROM coal. The increase is due to reduced longwall relocation delays and larger longwall panels.

The Cumnock CHPP facilities consist of ROM and product coal handling and stockpile facilities and a single module dense medium and spirals washplant with a feed capacity of 500 tonnes per hour. Product is transported by truck to Ravensworth coal terminal for train loading and transport to the port of Newcastle.

3.4.2 Cumnock opencut project

Description

Cumnock opencut project is located within existing leases to the west of the underground coal mine. The area is Stage 3 of opencut operations and is adjacent to established infrastructure.

Mining studies for the project have been conducted, the most recent focused on establishing a box cut providing highwall access for the underground mining in the Lower Pikes Gully Seam.

Geological characteristics

Seams of economic interest are located in the Wittingham Coal Measures. These are the Lemington, the Lower Pikes Gully Seam (where current underground mining takes place) and the underlying Upper Liddell Seam, which previously was worked by underground mining from separate mine entries.

Shallow coal resources exist in the sequence of seams that subcrop in the north-west corner of existing leases.

Maps and plans

The project is located in the Hunter Coalfield (see **Figure 2.1**), about 28 kilometres north-west of Singleton and as illustrated in **Figure 2.2.** The typical stratigraphy is shown in **Figure 2.6. Figures 3.19** to **3.22** show the extent of mine workings and the mine plan, surface features, exploration boreholes, major geological features, resources and lease boundaries for the four target seams.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3.**

Long-term prospects

Further potential opencut resources are contained within the Bayswater Seam. Further studies are required to determine mining potential.

Mining and processing

Cumnock is reviewing options for further development of the Stage 3 opencut. The options include either developing the opencut from the initial box cut and operating the pit up dip, or by establishing a second box cut as set out in earlier design work and operating the pit back towards the underground access box cut. The Stage 3 opencut, including the initial box cut, is already the subject of development consent, but requires a new surface lease. The leases should be granted on application to the Minister for Mineral Resources and nothing was found during the ITR which suggested that the leases would not be granted.

Should the project be developed, production would be processed through the Cumnock CHPP.

3.5 Mount Owen opencut

Description

Mount Owen coal mine is located in the Hunter Coalfield of New South Wales. It is owned by Hunter Valley Coal Corporation Pty Limited, a subsidiary of the Enex Group. The mine commenced operation in 1993.

Coal is transported by truck to the CHPP where coking and thermal products are prepared for export through the port of Newcastle. Mining is conducted under contract by Thiess Contractors Pty Limited which provides all personnel and mobile equipment and is responsible for all operations including mining, coal preparation and train loading.

Geological characteristics

Coal resources at Mount Owen occur within the Late Permian Wittingham Coal Measures where up to 22 mineable coal intervals are recognised, ranging in thickness from 0.4 metres to 10 metres. Within a stratigraphic interval of approximately 350 metres, the coal seams comprise a total thickness of approximately 55 metres. Mount Owen is situated between two regional thrust faults that limit the lateral extent of the coal seams, the Hunter Thrust and the Hebden Thrust. Seams are folded within the thrust block and dips vary throughout the deposit, with dips being steep (less than 30 degrees) in the areas near the Hunter and Hebden Thrusts where several parallel thrusts dislocate seams by up to 40 metres. Seam dips are relatively shallow in the remainder of the deposit (less than 10 degrees).

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**), about 25 kilometres north-west of Singleton and as illustrated in **Figure 2.2.** The typical stratigraphy is shown in **Figure 2.6. Figure 3.23** shows the mining area, exploration boreholes, surface features, major geological features, resources and lease boundaries.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. In Minarco's opinion there are sufficient reserves to support the planned mine life of 19 years.

Long-term prospects

The area contains 95 million tonnes of Inferred Resources. Additional exploration, testing and studies are required to define potential reserves.

Mining and processing

The coal mine occupies the middle of the mining leases and is divided into three interconnected pits (A, B and C). Most of pit A has been worked out. Mining is underway within pit B, while pit C is yet to be developed. Mine ROM production has been consistently 5.0 million tonnes to 5.3 million tonnes per annum with a saleable production at 3.4 million tonnes per annum. A mine expansion has recently been completed with 4.35 million tonnes of saleable production of coal produced in 2001 and 5 million tonnes per annum forecast for 2003 and beyond.

The Mount Owen CHPP facilities include ROM and product coal handling and stockpiling facilities, a washplant with a capacity of 1,200 tonnes per hour consisting of two dense medium modules and a single spirals module and a rail loading system.

3.6 Cook

Description

Cook coal mine is located 29 kilometres south of Blackwater in central Queensland. Coal is exported through the port of Gladstone, 315 kilometres by rail from the coal mine. The Enex Group has a 50% interest in the Cook coal mine. Centennial Coal Company Limited (the manager of Cook Resource Mining Pty Limited) controls 45% of the issued shares (through its subsidiary Cook Coal Holdings Pty Limited) and Tokyo Boeki owns 5%. Cook has had several owners each with different operating strategies. Centennial Coal Company Limited has focused on production from high productivity place change operations. Success has been mixed. The coal mine does not represent a material component in the Enex Group's business plan and assets and does not contribute to the financial model.

Geological characteristics

The Castor Seam and the deeper Argo (Pollux/Orion) Seam are the seams of economic interest at Cook. These seams lie on the eastern side of the Comet Ridge anticlinal structure within the Rangal Coal Measures. The Castor Seam is generally 2.7 metres to 3.2 metres thick and the Argo about 4 metres thick. The strata dips to the east at generally 3 degrees to 7 degrees. Faulting at Cook has produced blocks of relatively unstructured coal separated by large (5 metres to 20 metres) faults. Mining conditions within these blocks can be very good, although low angle thrusting in some areas can result in poor roof conditions.

The long history of mining in the Cook area has produced a large volume of geological data. In particular, surface and underground drilling, seismic surveys and other geophysical exploration techniques have been used.

Where seismic results identified structural features, drilling has been used to investigate their nature. The geological complexity of the resource is well appreciated and has been a constraint on mining in the area. This factor has prevented the successful implementation of high production underground mining methods that have been effective elsewhere. The previous exploration focus has been on locating fault zones. Recent work is being directed more to locating unstructured blocks of coal and how best to access them.

Maps and plans

The mine is located in the southern Bowen Basin of Queensland (see **Figure 2.1**) about 29 kilometres south of Blackwater as illustrated in **Figure 2.5**. The typical stratigraphy is shown in **Figure 2.9**. **Figure 3.24** shows the extensive lease area, exploration borehole and seismic line locations, surface features and resources.

Resource and reserve statement

No reserves have been calculated for the project.

Measured and Indicated Resources of 78 million tonnes and Inferred Resources of 750 million tonnes are estimated for the project.

Long-term prospects

Cook coal mine has a very large resource supported by reasonable infrastructure. The potential of the coal mine, however, is constrained by geological variability, which affects mining. Geological assessment is in progress and, while initial results have been promising, it is very difficult to rate the potential of the mine until this work is complete.

Mining and processing

The coal mine currently utilises continuous miners and shuttle cars to produce approximately 0.5 million tonnes per annum. The seams are accessed from the surface by a cross measure drift and drift winder. Coal is transported from the working face to the surface by a series of conveyors. ROM coal is stockpiled on the surface adjacent to the drift entry. Trucks haul coal from the coal mine to the Leichhardt CHPP about 10 kilometres north via a dedicated haul road.

Mining conditions have been good in many areas, although, where workings encounter fault structures, conditions can be very poor. The large number of fault structures encountered during the mine life has restricted mine production. Cook primarily produces coking coal for export, but also sells into the domestic thermal market.

3.7 United underground

Description

United coal mine is an underground coal mine located in the Hunter Coalfield of New South Wales. United coal mine is owned by United Collieries Pty Limited, the shareholders of which are the Enex Group – 95% and the Construction, Forestry, Mining and Energy Union (Minerals and Energy Division) – 5%. The Enex Group provides management services to the United coal mine. Underground mining commenced in 1992.

The mine is currently being developed as a longwall based operation with longwall production commencing in May 2002. ROM coal is prepared for export on site. It is then transported by truck to Mount Thorley Coal Loader and then by rail to the port of Newcastle.

Geological characteristics

The seam of economic interest is the Woodlands Hill Seam within the Jerrys Plains sub group of the Wittingham Coal Measures. The seam is 3 metres to 3.5 metres thick and dips towards the south-west from a depth of 30 metres in the north-east to a depth of more than 500 metres in the south-west at generally less than one in 50. The proposed longwall panels are oriented sub-parallel to a broad syncline, the axis of which runs through longwall 4.

Faulting trends north-east and comprises zones of numerous, mainly small displacement normal faults. A north-south trending igneous dyke/fault zone will be intersected again in the first four proposed longwall panels. To the north-east of the existing workings a north-west trending zone of large faults has been recognised. The Woodlands Hill and adjacent seams contain significant seam gas volumes.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**), about 30 kilometres west of Singleton as illustrated in **Figure 2.2**. The typical stratigraphy is shown in **Figure 2.6**. **Figure 3.25** shows the mining area, exploration boreholes, surface features, major geological features, resources and lease boundaries.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. In Minarco's opinion there are sufficient reserves to support the planned mine life of seven years.

Long-term prospects

There is potential for the reserves at United to be increased with negotiated access to the adjacent Wambo lease area. There is also some potential for reserves to be identified in the adjacent A444 exploration area.

Mining and processing

The mine plan includes development and extraction of seven longwall panels within the current lease boundary.

The forecast operating plan is based on an increase in production to 2.73 million tonnes per annum ROM coal. Increased production will be achieved through longwall production together with upgraded coal clearance and handling equipment. The coal mine will also benefit from the construction of a CHPP.

The current CHPP facilities are to be replaced with new facilities to be constructed adjacent to the mine's underground accesses. The new CHPP facilities will include ROM and product coal handling facilities and a washplant with 700 tonnes per hour feed capacity. Product coal will be transported by truck 18 kilometres to the Mount Thorley coal terminal for rail loading. Following the potential construction of the Jerrys Plain coal terminal road transport distances will be significantly reduced.

The transition to longwall production resulted in a decrease in production for 2001.

3.8 Ulan

The Enex Group purchased its interest in the Ulan Coal Mines Joint Venture ("UCMJV") and Ulan Coal Mines Limited in early 2001. The coal mine comprises the Ulan No.2 underground and the Ulan opencut. The Enex Group, through subsidiaries, owns 90% of the UCMJV and 90% of the shares of Ulan Coal Mines Limited (the operator of Ulan) with Mitsubishi Development Pty Limited owning 10%. These parties own the same proportionate interests in the underlying assets.

3.8.1 Ulan underground

Description

Ulan is located in the Western Coalfield of New South Wales, approximately 274 kilometres by rail from the port of Newcastle. Mining has been conducted in the area since the mid-1920's using small scale underground mining.

Opencut mining began in 1982. Bord and pillar operations in the No.2 coal mine were established in 1975 and the underground coal mine, utilising high capacity longwall extraction, commenced in late 1986.

Geological characteristics

Coal resources at Ulan are in the Permian Illawarra Coal Measures, on the north-western margin of the Sydney Basin. The Ulan Seam is near the base of the sequence and is the only seam in the leases with economic potential. The seam depth from surface ranges from 10 metres in the open cut areas to more than 300 metres in the north-east.

The strata dip to the north-east at 1 degree to 3 degrees and small scale faulting is present but rare. A number of igneous plugs, diatremes and sills have been intersected or interpreted during exploration and mining. Plugs that will influence future mine planning have been identified in the planned underground mining area.

The Ulan Seam is up to 10 metres thick and the basal 3 metre sections (D ply) is worked underground. The D ply has coal roof and interbanded coal and claystone floor. The coal is high volatile bituminous rank with medium ash and sulphur levels and high energy content.

Remaining resources within the Ulan Seam D Ply are in areas which may be exploited by underground methods north and west of current mining.

Maps and plans

The mine is located in the Western Coalfield (see **Figure 2.1**), about 40 kilometres north-east of Mudgee as illustrated in **Figure 2.4.** The typical stratigraphy is shown in **Figure 2.8. Figure 3.26** shows the mining area, exploration boreholes, surface features, major geological features, resources and lease boundaries.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. In Minarco's opinion there are sufficient reserves to support the planned mine life of 19 years.

Long-term prospects

The Ulan area contains significant resources within a thick seam. The Enex Group is currently examining a number of thick seam extraction options that could provide additional reserves from the upper seam plies.

Mining and processing

Mining includes longwall extraction in longwall 17 and development of main headings and longwall 18 gate roads. The operating plan is based on continued development and extraction of longwall panels north of the current mining area. In the short to medium-term, two longwall panels will be affected by igneous plugs necessitating panel dislocation around the intruded areas. Following completion of longwall 22, longwall panel alignment will change from the current east-west alignment to a north-south alignment.

The forecast operating plan is based on decreasing production from 3.95 million tonnes per annum to 3.15 million tonnes per annum ROM. The decrease is due to a reduction in short-term development demands, resulting in lower development tonnage and a reduction in longwall operating shifts. Production increases to approximately 3.8 million tonnes per annum following 2004.

Ulan CHPP facilities include ROM and product coal handling and stockpile facilities, coal washing plant and a rail loading system. The operating strategy produces unwashed marketable product and therefore the washing plant is not utilised for processing the total of underground production. Facilities also include a rail loading system.

3.8.2 Ulan opencut

Description

The opencut mine and coal processing are operated under contract by Roche Bros Pty Limited (a subsidiary of the public company Downer Group Limited, which is listed on the Australian Stock Exchange). Coal is washed to produce both domestic and export thermal coal with the export products transported to markets by rail through the port of Newcastle.

Geological characteristics

Ulan opencut exploits the same geological strata as the underground coal mine. The full seam of up to 10 metres thickness is mined. The opencut limits are defined by rising topography on the north, south and north-west of the valley and by seam thinning to the south-west. The seam deteriorates as it approaches the depositional edge of the basin to the south and west.

The lower section of the seam is similar to the underground mining section and the upper section is higher in ash with interbedded claystone bands. The Permian overburden is competent sandstone, siltstone and claystone. A Tertiary drainage channel with up to 30 metres fill of unconsolidated sand, gravel and clay crosses the mining area, but it does not affect the seam and must be considered in overburden handling.

Maps and plans

The mine is located in the Western Coalfield (see **Figure 2.1**), about 40 kilometres north-east of Mudgee as illustrated in **Figure 2.4**. The typical stratigraphy is shown in **Figure 2.8**. **Figure 3.27** shows the mining area, exploration boreholes, surface features, major geological features, resources and lease boundaries.

Resource and reserve statement

A summary of resources and reserves as at 30 November 2001 is included in **Table 2.3**. In Minarco's opinion there are sufficient reserves to support the planned mine life of six years.

Long-term prospects

There are limited prospects for further expansion of the opencut operation.

Mining and processing

Opencut mining expanded at the commencement of a 15 year domestic contract to supply thermal coal to Eraring Power Station. The closure of the opencut will coincide with the completion of this contract in 2007. A recently completed options study examined alternatives for mining the remaining opencut reserves. The Enex Group proposes to continue with the current mine plan.

The mine shares the CHPP facilities with the underground operation. Opencut production is washed. The washing plant is a two module plant with a rated feed capacity of 1,400 tonnes per hour.

3.9 Ravensworth Group

The Enex Group purchased the Ravensworth Group mines from Coal & Allied Industries Limited on 13 March 2002. The Enex Group has also agreed to acquire the land on which the Ravensworth West project is situated, but this acquisition has not yet been completed. Coal & Allied purchased the interests through its acquisition of Peabody Resources Ltd in 2001.

The Enex Group has interests in two coal mines and one project, grouped as follows:

- Narama is an operating opencut mine, in which the Enex Group has a 50% interest. The other 50% is held by Iluka Resources Ltd;

- Ravensworth East is an operating opencut mine and is held 100% by the Enex Group; and
- the Ravensworth West project is held 100% by the Enex Group.

3.9.1 Narama opencut

Description

This coal mine is a large scale operation which commenced in 1992. Coal is supplied under contract to Macquarie Generation providing 2.06 million tonnes per year to end of year 2012. Coal is mined from the opencut pit and is transported by truck to a receival and crushing facility, then to the Liddell and Bayswater power stations via a series of overland conveyors.

Geological characteristics

This opencut mine adjoins the completed Ravensworth South opencut mine, which operated the same Bayswater, Ravensworth and Vaux seams, in a similar geological regime, for many years. The upper seams, although thinner than the Bayswater seam, are lower in ash content and are important in the overall coal blend that is supplied to the local power stations.

The coal resources in the Narama deposit are in a gently dipping syncline and the basal seam (B2) will be about 80 metres deep when the mine reaches the end of the planned 20 year (i.e. contract 1993 to 2012) operation. Additional coal exists further east in the axis of the syncline and on the eastern limb, at strip ratios of up to 8 cubic metres per tonne (in-situ).

In the planned mining area the partings between the lower coal intervals vary in thickness such that the mineable section varies from one 7 metre section that includes all of those seams to three sections with discrete partings that are mined to waste. Where the partings are too thin to be mined to waste they contribute to a higher ash ROM product.

No significant faults are anticipated within the area that is to be mined within the next 10 years. A volcanic breccia that is known from the Ravensworth South mine exists at the northern end of strips 929N and 930N. The extent of the breccia is unknown. Any reduction in coal tonnage caused by the volcanic breccia will require an increase in the final extent of mining to make up the contract tonnage shortfall. A narrow igneous dyke, about 1 metre wide, trends north north-east to south south-west across Narama, but will have little impact on resources.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**), about 20 kilometres north-west of Singleton as illustrated in **Figure 2.2**. The typical statigraphy is shown in **Figure 2.6**.

Resource and reserve statement

A summary of the resources estimated as at 28 February 2002 is included in Table 2.3. The known extent of the resource area and the proposed mine plan show that there are more than sufficient reserves available to satisfy the contractual tonnage of 22.7 million tonnes to year 2012.

Long-term prospects

Additional coal is present in the east of the mine holding beyond the current mine plan. Extension of the operations in this area will depend on future definition and extent of these potential resources.

Mining and processing

Narama operates a dragline as the prime overburden stripping machine with a truck and shovel fleet completing prestripping to the shallower seams. The mine forms a series of parallel strips along a 2.15 kilometre strike length progressing down dip in the syncline with the seams exposed in a series of steps. The mine will extract up to 36 strips each 55 metres wide to meet the total contract supply.

All overburden greater than 2 metres thick is blasted prior to removal. Only the Bayswater Seam is drilled and blasted prior to loading. Coal is trucked to a crushing facility reducing the coal to a nominal 50 millimetre size for conveying by a series of overland conveyors to the Bayswater and Liddell power stations.

3.9.2 Ravensworth East opencut

Description

Ravensworth East is the former Swamp Creek operation. Production recommenced in 2000 as a truck and shovel operation, targeting the Bayswater and Ravensworth Seams for supply to the local domestic power stations. A coal supply contract for 2.25 million tonnes per year is in place to 31 December 2003.

Geological characteristics

The opencut mines the Ravensworth and Bayswater Seams that dip at between 5 degrees and 12 degrees on the western limb of the Glennies Creek Syncline. The Hebden Thrust Fault trends north-west by south-east across the holding splitting the mining area lying to the east of the Mount Owen rail loop. This fault extends north into Mount Owen.

The upper Ravensworth seams that are mined vary from 0.5 metres to 2.0 metres thick and have in-situ ash of between 8% and 25%. The interburden varies from 0.5 metres to 25 metres thick. The basal Bayswater Seam is from 9 metres to 11 metres thick in the planned mining area and comprises about 55% of the resource in this deposit. It usually comprises five recognisable coal plies, each

from 1 metre to 3 metres thick and with an in-situ ash in the range 17% to 35%. In the western part of this deposit, where mining is currently in progress, the 9 metre thick seam has relatively thin partings between the five main coal plies, and can be mined as one interval with an in-situ ash of about 28%. As mining progresses down dip to the east the five coal plies are split by stone partings of increasing thickness, up to about 1 metre thick.

The planned mining area is affected by several minor faults and narrow igneous dykes that trend north-east to south-west. These geological hazards were exposed in the Swamp Creek Mine and are not expected to create any particular mining problems in the current operations.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**), about 20 kilometres north-west of Singleton between the Enex Group's Mount Owen and Glendell mine sites. The location is illustrated in **Figure 2.2**. The typical statigraphy is shown in **Figure 2.6**.

Resource and reserve statement

A summary of the resources and reserves as at 28 February 2002 is included in **Table 2.3**. In Minarco's opinion there are sufficient reserves to support the planned mine life of 16 years.

Long-term prospects

The mine is constrained by the existing and proposed Enex Group operations and the Mount Owen rail loop to the east.

Mining and processing

The mine operates electric and hydraulic excavators for overburden removal with the coal being loaded by front end loader into a fleet of trucks. The mine is operated in a series of benches progressing in an easterly down dip direction. Each bench is 60 metres wide with the overburden faces designed at 65 degrees for pit wall stability. The mine plans to continue supplying domestic coal to the local power stations under the existing contract to December 2003.

3.9.3 Ravensworth West project

Description

Ravensworth West is a project area to the west of the existing Narama mine and to the south-east of Cumnock underground mine.

Commencement of the mine is conditional upon securing future supply contracts with Macquarie Generation. A development consent has been granted with a Mine Lease Application in place.

Geological characteristics

In this area opencut mining is planned for the Bayswater Seam and up to 10 other seams (Broonie and Vaux) located in the 50 metres of strata above. Within the project area the seams generally dip south at 2 degrees to 4 degrees. The Bayswater Seam subcrops in the north where it is 3 metres to 4 metres thick. Towards the south there is a consistent trend where the Bayswater seam thickens to over 6 metres. The upper seams range in thickness from 0.45 metres to 1.3 metres. The average in-situ ash for the total of the mineable intervals is about 25%.

Three faults and an igneous dyke that is about 30m wide affect the area. The displacement on the faults is interpreted to be from 5 metres to 20 metres, while the heat from the dyke has had a minor effect on the coal up to 40 metres away from its margins. The resource assessment has excluded all coal within 50 metres of the dyke.

Maps and plans

The mine is located in the Hunter Coalfield (see **Figure 2.1**), about 30 kilometres north-west of Singleton as illustrated in **Figure 2.2**. The typical statigraphy is shown in **Figure 2.6**.

Resource and reserve statement

Within EL 5297, there are 77 million tonnes of Measured Resources within seams thicker than 0.5 metres and excluding the 130 metres wide dyke zone. Sixty per cent of these resources are contained within the Bayswater seam. Additional shallow coal, in the subcrop zone, (about 3 million tonnes) is available in ML 1393 under an arrangement with Cumnock. A summary of the resources and reserves is included in **Table 2.3**.

Mine operations and processing

The Enex Group propose a dragline operation commencing in 2003 with an annual production ramping up to 2 million tonnes. The mine life is currently stated at 10 years with total saleable production of 18.7 million tonnes.

3.10 Special factors

During the preparation of the CPR, Minarco examined each operating asset to identify operating issues and significant operating risks.

Whilst a number of significant risks were identified at each of the operating assets during the conduct of the CPR, Minarco were of the opinion that:

- the Enex Group has identified these risks;
- the Enex Group has made appropriate allowances within the cashflow forecasts to mitigate against these risks; and
- none of the risks were "material" as defined in Annex B.

3.11 Conclusions

Minarco has reviewed each of the assets in the Enex Group portfolio and has undertaken a valuation of the operating assets included in the Enex Group's cashflow forecasts. Minarco concludes from this review that:

- the geological and geotechnical understanding of the Enex Group, together with hazard identification, is of a sufficient level to support short, medium and long-term planning as appropriate;
- the mine plans appropriately reflect geological and geotechnical understanding and account for predicted mining hazards;
- the Enex Group's mining equipment (either in place or planned in the capital forecasts) is suited to its mine plans and supports the production levels forecasted;
- coal handling and preparation plants and other infrastructure are capable of supplying appropriate quality products to satisfy the export markets at the forecast volumes and can also supply domestic markets;
- environmental issues are being well managed and there are no issues that could significantly impede production;
- the assumptions used in estimating both capital and operating costs are appropriate and reasonable;
- capital and operating costs used in the financial models reflect the mine plans, development and construction schedules as well as the forecast production levels;
- key risks identified by Minarco are understood by management and appropriate action to mitigate these risks has been taken. Further, the mine plans and cost forecasts appropriately account for these risks; and
- the drivers of the production and cost forecasts are understood by management and are receiving the management focus required.

Minarco is of the opinion that the Australian coal assets of the Enex Group:

- represent a significant component of the Australian coal industry;
- demonstrate diversity via:
  - a spread across four coal mining districts;
  - production of a range of coking and thermal products serving both export and domestic markets;
  - export from three export ports; and
  - production from both underground and opencut operations with a mix of owner and contractor operations;
- have mine layouts over areas of Measured and Indicated Resources which generate forward schedules in the range of 10 to 20 years for most operations;
- have significant Inferred Resources which may further extend schedules after the appropriate level of exploration, testing and studies have been undertaken to estimate further reserves;
- has a total value of Proved and Probable Reserves of approximately US$1,034 million with 60% of this value associated with Proved Reserves. This value does not include the resources contained within other projects held by the Enex Group; and
- that the value of the assets is most sensitive to changes in export coal price with a 10% reduction in export coal price decreasing reserve value by over 33% to US$693 million.

Minarco has estimated that the value of the Enex Group's reserves is US$1,034 million, assuming a nominal discount rate of 9.5%, reasonable forecasts for both A$/US$ exchange rates and coal prices, as well as cost and production forecasts which are soundly based.

Yours faithfully

Graeme Duncan
Managing Director
B Eng (Min Hons), M Eng
Member AusIMM (Chartered Professional)
Member AIME

David Meldrum
Director
B Eng (Min Hons), Grad. Dip. Appl. Fin.
Member AusIMM (Chartered Professional) ASIA

Annex A – Qualifications and experience

Graeme Duncan – Managing Director of Minarco – Bachelor of Engineering (Mining Hons 1) – Master of Engineering (Mining) Second Class Certificate of Competency – Member of Australasian Institute of Mining and Metallurgy (Chartered Professional) – Member of American Institute of Mining Engineers.

Graeme has over 22 years experience as a mining engineer, initially with operational experience at a number of coal mines in Australia, and later as a consultant. He has extensive experience of reserve calculation, mine design, feasibility studies and bankable documents and has developed and continues to operate a coal supply cost model for the Australian coal industry.

Graeme has worked on numerous mine valuations, technical audits, operational assessments and coal supply studies within Australia and overseas and has carried out numerous due diligence exercises for financiers and investors.

David Meldrum – Director of Minarco – Bachelor of Engineering (Mining Hons) – Graduate Diploma in Applied Finance – First Class Mine Managers Certificate of Competency - Member of Australasian Institute of Mining and Metallurgy (Chartered Professional) - Associate of Securities Institute of Australia

David has a First Class Mine Managers Certificate of Competency with over 20 years experience associated with the mining industry within Australia and overseas. During this period he has undertaken all levels of technical studies and audits of current and prospective operations in Queensland, New South Wales, South Australia, South Africa and Indonesia. Apart from providing advice to numerous financiers, David has finance industry experience having been an Investment Banker and having carried out studies for both lenders and investors.

David concentrates on providing technical and commercial advice to both the coal and finance industries. This work includes advising clients on the sale and/or purchase of coal projects and has involved development of business strategies to maximise the value of the opportunities. David also has extensive experience in reserve estimation.

Robert de Jongh - Senior Engineer, Minarco - B E (Hons) (Mining) University of New South Wales - Western Australia Quarry Manager's Certificate of Competency - Permit to Act as a NSW Opencut Examiner - New South Wales Powderman's Certificate - Member of Australasian Institute of Mining and Metallurgy - Member of Society for Mining, Metallurgy and Exploration.

Robert has 24 years experience in the mining industry, mainly in opencut coal mining, but also in underground and opencut hardrock mining. He has been involved in the planning and development of many large opencut coal mines, including El Cerrejon Mine in Colombia, South America, and in Australia, the Warkworth, Ravensworth South, Bayswater, Camberwell, Rixs Creek, Premier, Ewington, Lemington, South Lemington, Mount Arthur North and Wambo mines.

He has had 14 years of consulting experience including geological modelling, open pit optimisation, mine design, reserves assessment, rehabilitation design, mine scheduling, costing, economic analysis, technical audits and due diligence studies. He has worked on projects in Australia, Indonesia, Philippines, India, USA and Canada.

Robert Byrnes - Director of International Environmental Consultants

Robert has 15 years experience in the environmental field and has project managed numerous environmental impact statements, rehabilitation and water management plans, together with compliance auditing for coal mining operations in the Hunter Valley and Western coalfields. He has a degree in Science and a post graduate diploma in Environmental Studies.

Les Geczy - General Manager of James C Donnelly & Associates/QCC Process Engineering - Bachelor of Engineering (Mechanical Hons) - Bachelor of Commerce - Fellow Institute of Engineers Australia, Member Australian Coal Preparation Society.

Les has been associated with the coal industry since 1973, working initially for Electricity Commission of New South Wales. For 20 years he held a number of operational and engineering management positions in New South Wales coal mining companies. As Coal Preparation Manager for Wambo, Howick and Newdell, he was responsible for the operations, maintenance, internal and external transport of coal and marketing support, plus overseeing capacity and metallurgical upgrades for the plants.

With Coal & Allied he held management positions for engineering, covering maintenance, internal transport and engineering development activities including the procurement of new mining equipment and supply, developing the strategy, systems and procedures for the Contracts & Supply function. At Bulga Coal Management Pty Ltd he was Manager Maintenance, responsible for all maintenance engineering activities for the dragline, electric rope shovel, truck fleet and support earthmoving equipment at the Bulga opencut mine.

Andrew Swanson - Managing Director, Quality Coal Consulting Pty Ltd - Bachelor of Engineering (Chemical Hons I) - Master of Engineering (Mineral Processing) - Member Institute of Engineers Australia, Member Australian Coal Preparation Society.

Andrew has worked on coal industry projects for 25 years, working initially at BHP Research Laboratories supporting coal operations through preparation process development and improvement, resource appraisal, economic modelling and technical support to marketing. Since 1983, firstly with CCI and now with QCC, many projects have been carried out for coal mining operations all over Australia and ion New Zealand. His current position includes the provision of consulting services in coal technology disciplines, feasibility studies and mine site operating strategies, in addition to the coordination of company activities, business development and planning.

Kerry Whitby - Managing Director of McElroy Bryan Geological Services Pty Ltd - Bachelor of Science - Fellow Australasian Institute of Mining and Metallurgy - Member Australian Institute of Geoscientists - Member Geological Society of Australia

Kerry has worked for McElroy Bryan and Associates Pty Ltd since 1971 in various coal exploration projects.

Kerry was in field supervision of coal exploration programmes in the Hunter Valley, Western Coalfields and Southern Coalfields, Sydney Basin (New South Wales), Bowen Basin (Qld), Archaringa Basin, Eucla Basin (SA). Responsible for planning and management of coal exploration programmes at German Creek, German Creek East, Gordonstone and Lake Lindsay (Qld) including detailed geological assessments and the preparation of feasibility studies. Management of coal exploration projects in Queensland (Togara North, Newlands, Bathurst Range, Eastern Creek) and New South Wales (Dartbrook, Ulan). Technical audits and geological appraisals for numerous coal projects including Collinsville, Moranbah North, Oaky Creek, Coppabella. Preparation of Technical Information Packages for Restricted Areas for the Department of Minerals and Energy, Queensland. Field Investigation and design of exploration programmes at Merit Pila, Sarawah and Kalewa, Union of Myanmar. Responsible for implementing major exploration programmes for primary and alluvial sapphire deposit in eastern Australia and China.

Annex B - Scope of work/limitations and exclusions/materiality

Scope of work

Minarco carried out the following scope of work for the CPR:

- introductory meetings with the Enex Group management and consultants to understand the business plan;
- site visits and collection of data. Key members of the study team visited each of the assets and were given presentations of the site business plans by senior site management. Relevant team members inspected mining operations, infrastructure, CHPPs, haulage roads (and conveyance systems) and mining equipment (including draglines, longwalls, continuous miners, trucks, dozers, shovels and excavators);
- data rooms were established at each coal mine to provide the study team with information that formed the basis for the review. For some projects the data review comprised a desk study of available information; and
- technical review and reporting. A technical review of each asset was undertaken by the study team. The key elements of the review included:

  - review of data suitability;
  - geology and mining hazards;
  - resources and reserves;
  - mining operations;
  - coal preparation and handling;
  - environmental issues;
  - capital and operating costs;
  - review of financial model cost forecasts;
  - identification of key project drivers and issues; and
  - valuation of reserves.

The CPR covers the Enex Group's assets that are materially relevant to the cost schedules and cash flow models developed and provided by the Enex Group and those reserves that are JORC Code compliant. Consequently, resources which do not convert to reserves have not been valued.

Limitations and exclusions

The CPR is based mainly on information provided by the Enex Group, either directly from its mine sites and other offices, or from reports by other consultants whose work is the property of the Enex Group. The report is based on information made available to Minarco before 31 January 2002. The Enex Group has advised Minarco of any material change, or event likely to cause material change, to its budgets or LOM schedules known to the Enex Group as of 28 February 2002.

The work undertaken for this report is a technical review of the information coupled with such inspections as Minarco considered appropriate to prepare the CPR.

It specifically excludes all aspects of legal issues, commercial and financing matters, land titles, agreements, excepting such aspects as may directly influence technical, operational or cost issues.

Minarco has not independently forecasted the coal prices to be achieved by the Enex Group. Minarco has used coal price forecasts derived from forecasts provided by the McCloskey Group (independent coal market forecasters).

The Enex Group provided the financial models reviewed in the CPR. Minarco reviewed the accuracy and consistency of the assumptions relevant to forecasting production, costs and product quality. Minarco has not audited these models.

In Minarco's opinion, the information provided by the Enex Group was reasonable and nothing discovered during the preparation of the CPR suggested that there was any significant error, misrepresentation or omission in respect of that information.

Materiality

The CPR has addressed significant operating risks. Where risks for an asset are likely to impact on the Enex Group LOM forecast production, capital and operating costs for that operation by less than 10%, they have not been considered significant. Any identified significant risks were reviewed to ensure adequate allowance is provided within the Enex Group forecasts to address these risks. Any significant risks which are not adequately addressed in the Enex Group forecasts are considered to be "material".

Figure 2.1 - Location of the Enex Group's operations

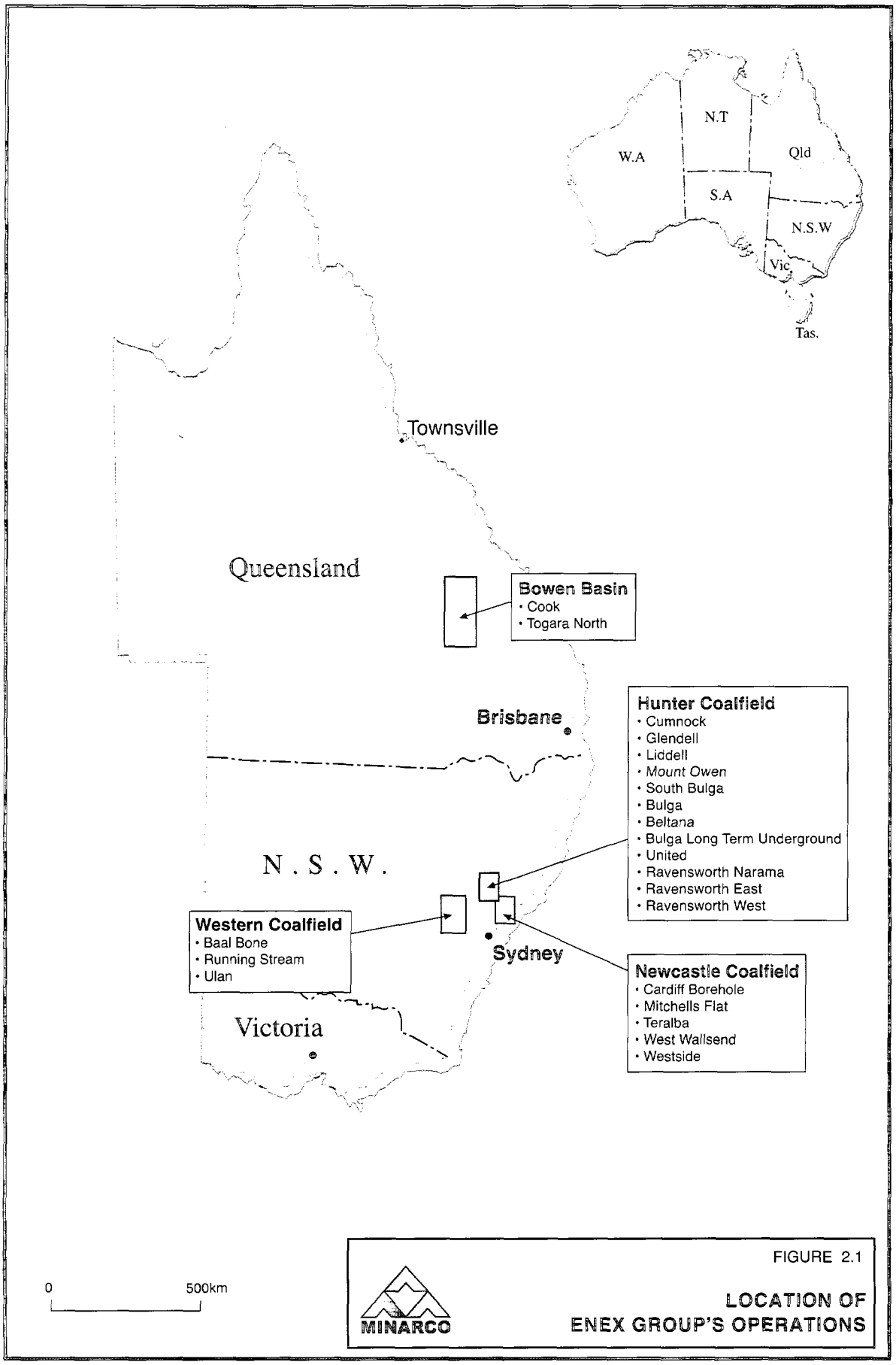

Figure 2.2 - Location of the Enex Group's operations - Hunter Coalfield

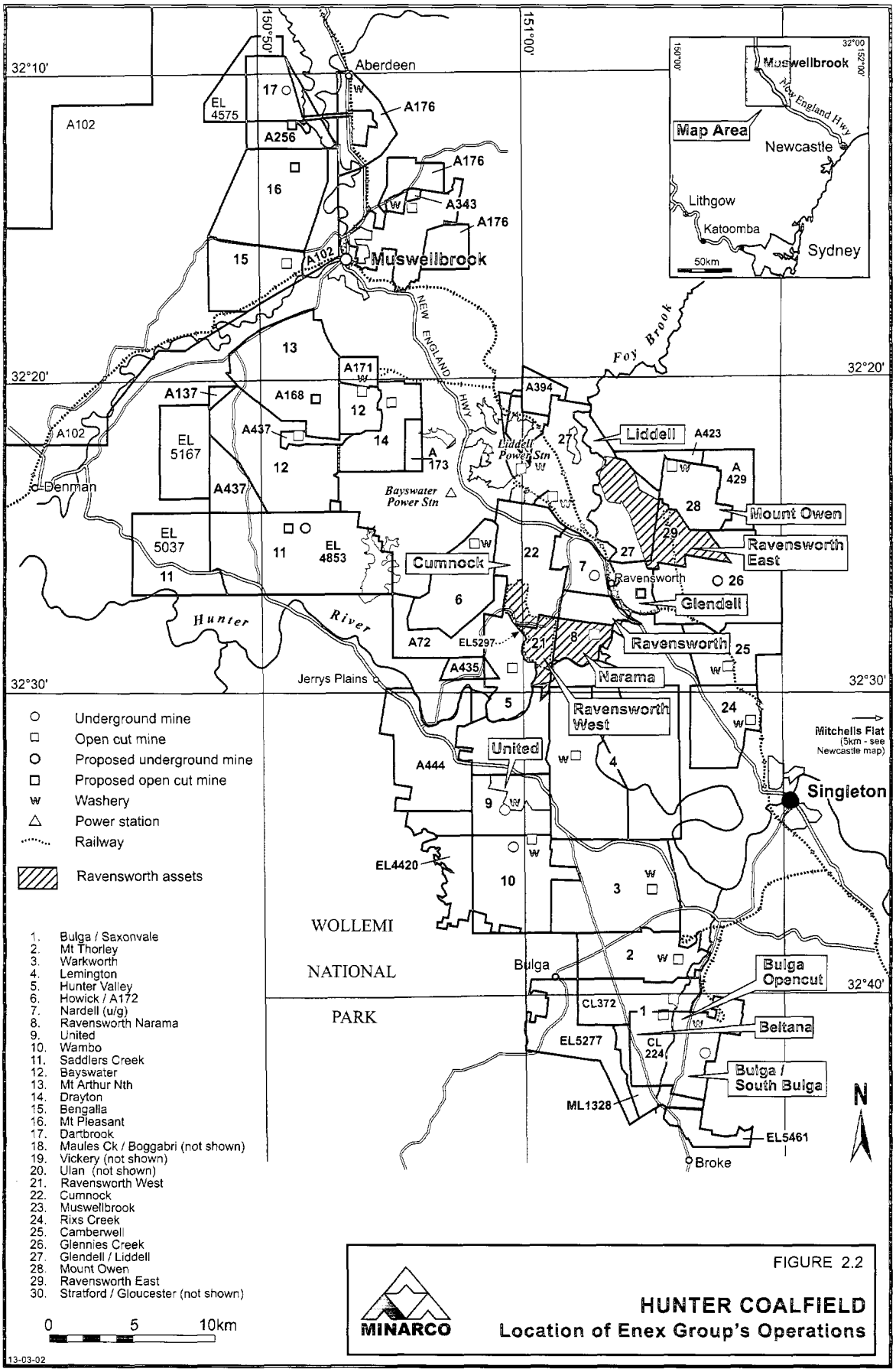

Figure 2.3 - Location of the Enex Group's operations - Newcastle Coalfield

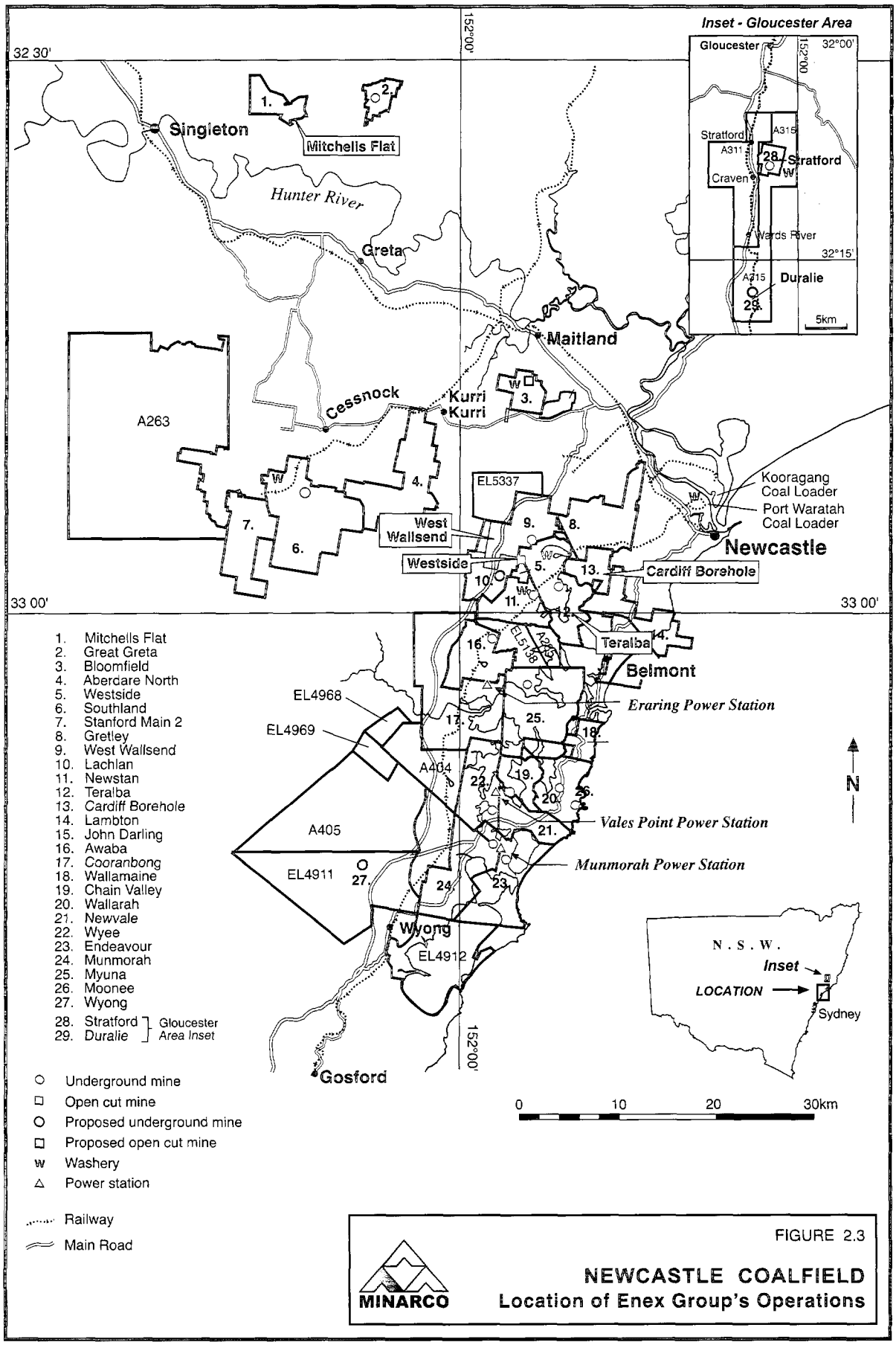

Figure 2.4 - Location of the Enex Group's operations - Western Coalfield

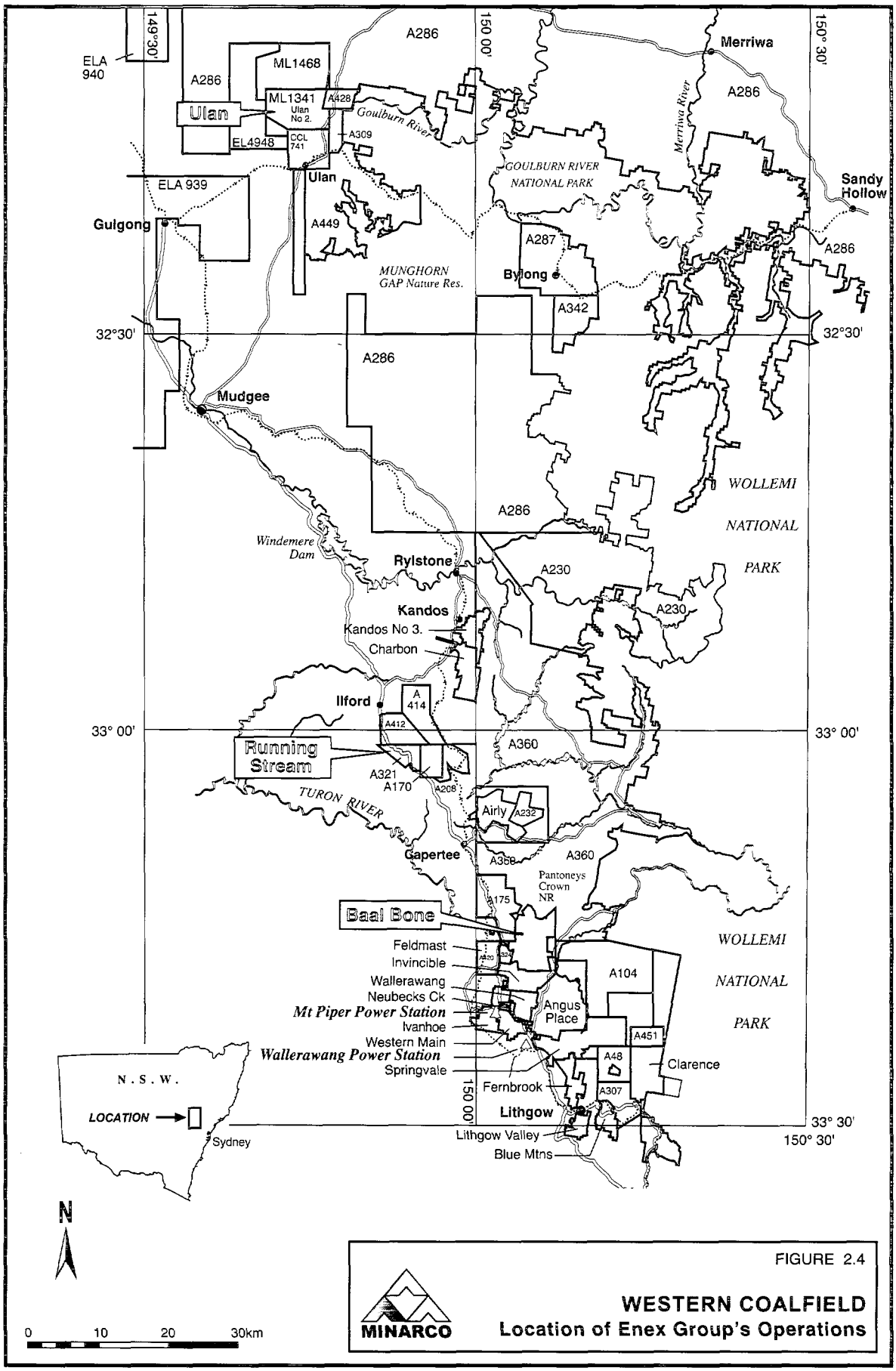

Figure 2.5 - Location of the Enex Group's operations - Bowen Basin

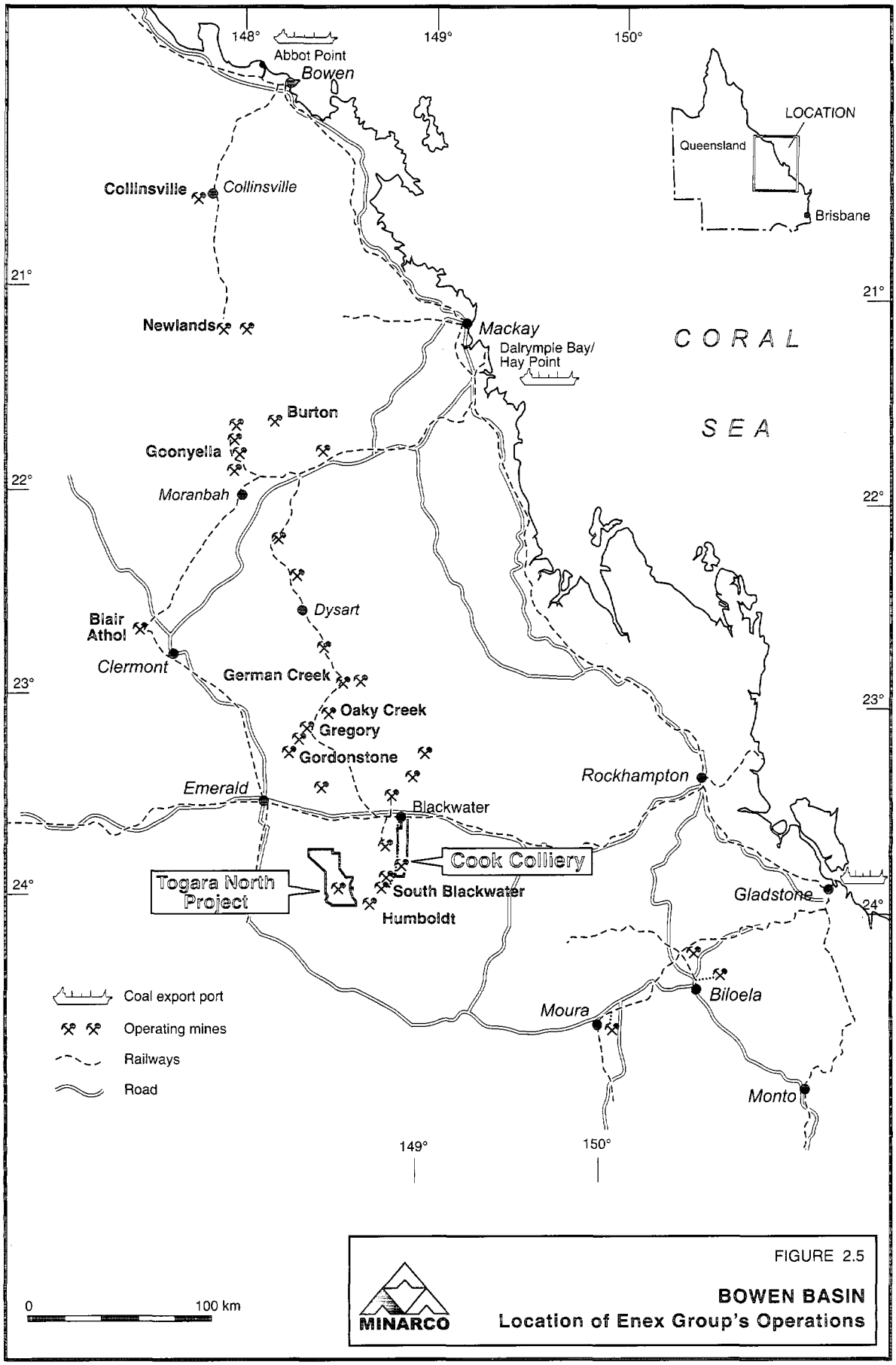

Figure 2.6 - Typical stratigraphic section - Hunter Coalfield

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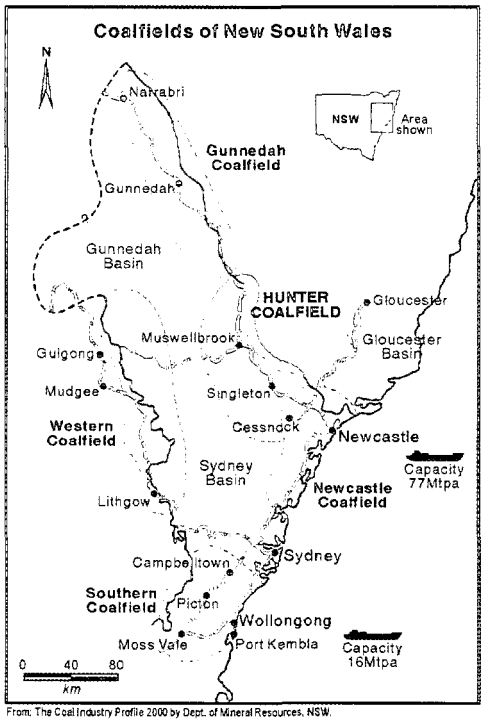
FIGURE 2.6

HUNTER COALFIELD NSW
Typical Stratigraphy

LEGEND

Sandstone		Conglomerate	
Claystone		Undifferentiated	
Tuff		Coal	
Granite		Stoney coal	

AGE		STRATIGRAPHY			
TRIASSIC	Middle	Wianamatta Group			
		Hawkesbury Sandstone			
	Early	Narrabeen Group	Gosford Subgroup		
			Clifton Subgroup		
			Widden Brook Conglomerate		
PERMIAN	Late	Singleton Supergroup	Wollombi Coal Measures	Glen Gallic Subgroup	
				Doyles Creek Subgroup	
				Horseshoe Creek Subgroup	
				Apple Tree Flat Subgroup	
				Watts Sandstone	
			Wittingham Coal Measures	Denman Formation	
				Jerrys Plains Subgroup	
				Archerfield Sandstone	
				Vane Subgroup	Bulga Formation
					Foybrook Formation
				Saltwater Creek Formation	
	Middle	Maitland Group	Mulbring Siltstone		
			Muree Sandstone		
			Branxton Formation		
		Greta Coal Measures	Rowan Formation		
	Early		Skeletar Formation		
		Dalwood Group	Gyarran Volcanics		



From: The Coal Industry Profile 2000 by Dept. of Mineral Resources, NSW.

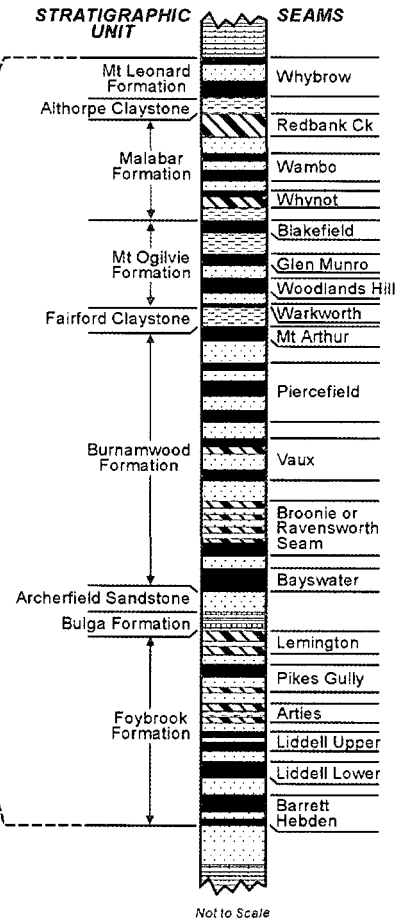
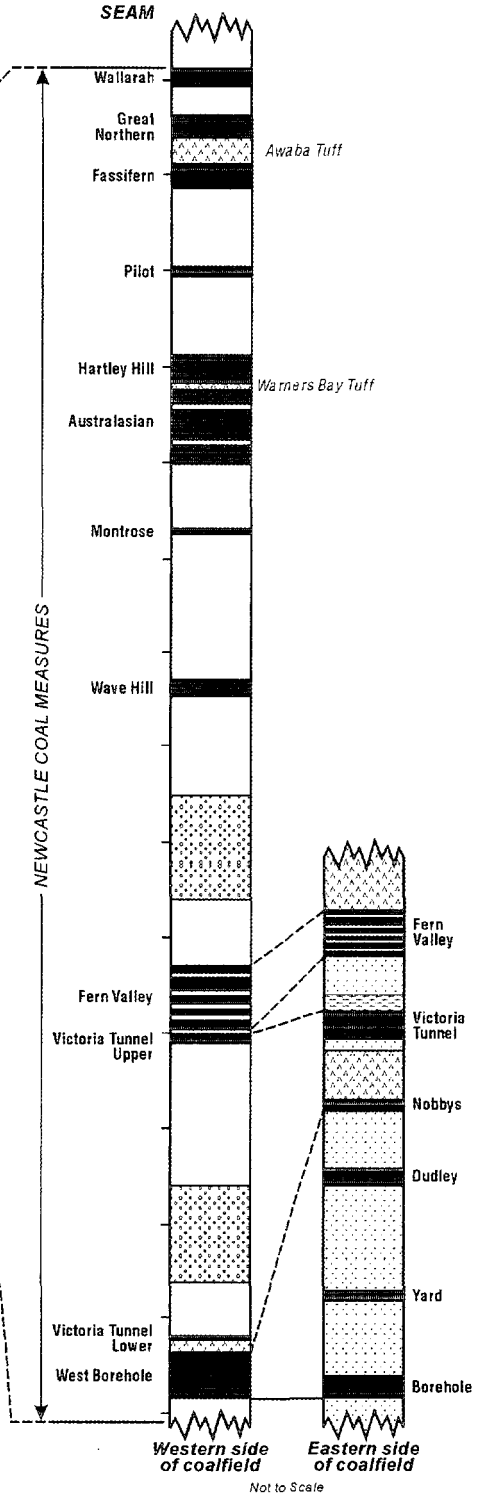
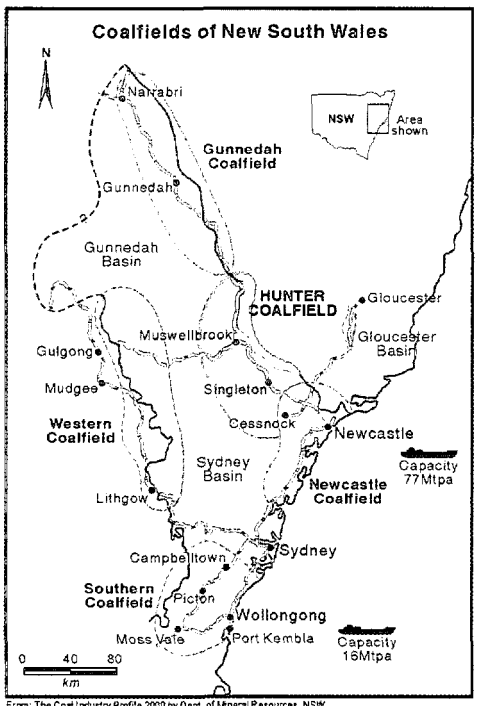


Figure 2.7 - Typical stratigraphic section - Newcastle Coalfield

AGE	NEWCASTLE COALFIELD			
	Group	Subgroup	Formation	Seam
TRIASSIC	Narrabeen Group			
LATE PERMIAN	Newcastle Coal Measures	Moon Island Beach		Wallarah Great Northern
		Boolaroo		Fassifern Pilot
		Adamstown		Hartley Hill Australasian Montrose Fern Valley Victoria Tunnel
		Lambton		West Borehole
			Waratah Sandstone	
	Tomago Coal Measures		Dempsey Formation	
				Buttai
				Donaldsons
				Big Ben
				Ashtonfields
				Tomago Thin
			Kulnura Marine Tongue	
				Rathluba
	Maitland Group			
MIDDLE PERMIAN	Greta Coal Measures			Greta





From: The Coal Industry Profile 2000 by Dept. of Mineral Resources, NSW.

Note: Not to scale

LEGEND

- Sandstone
- Claystone
- Tuff
- Granite
- Conglomerate
- Undifferentiated
- Coal
- Stoney coal

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FIGURE 2.7

NEWCASTLE COALFIELD NSW
Typical Stratigraphic Section

Figure 2.8 - Typical stratigraphic section - Western Coalfield

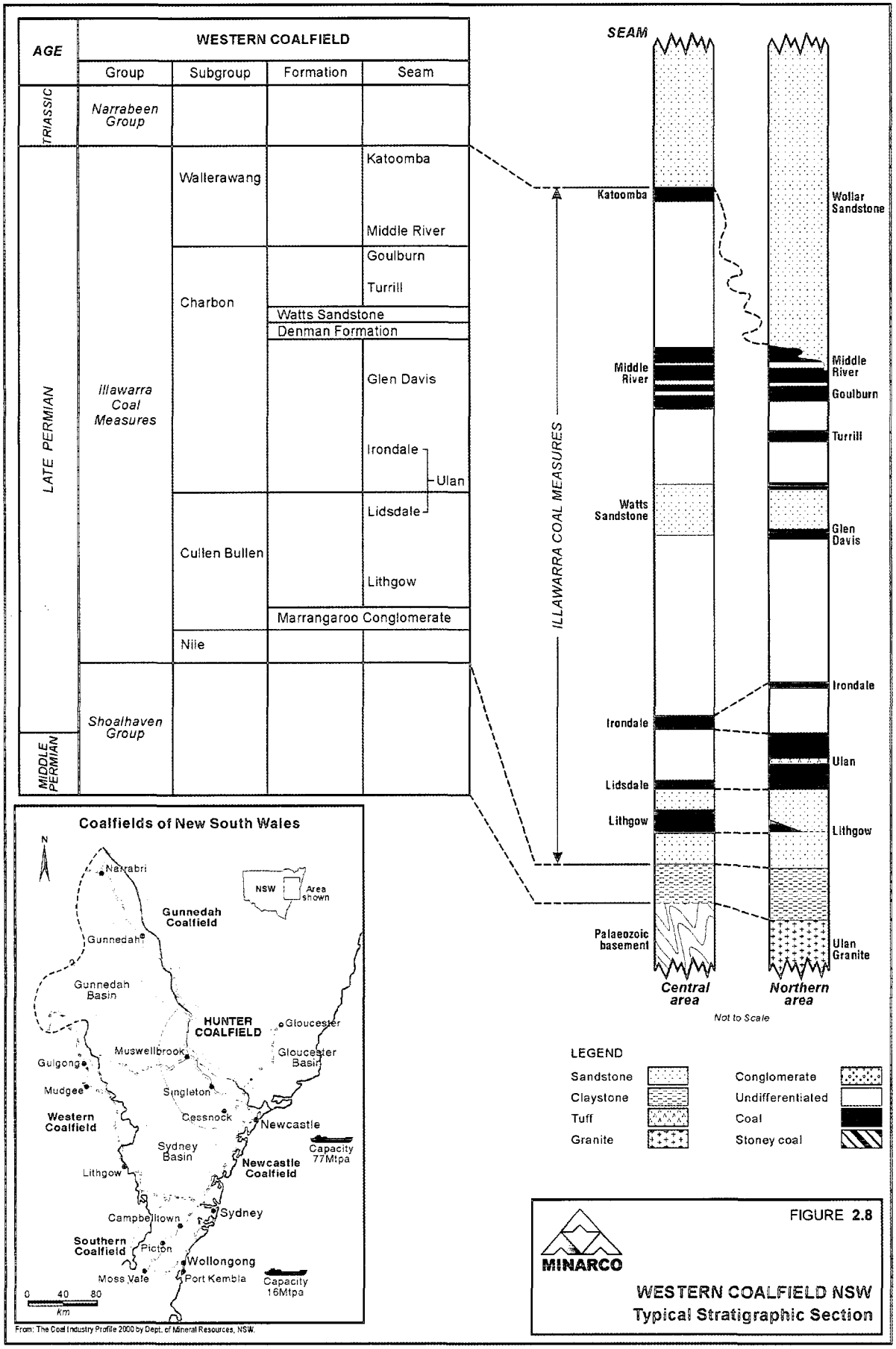
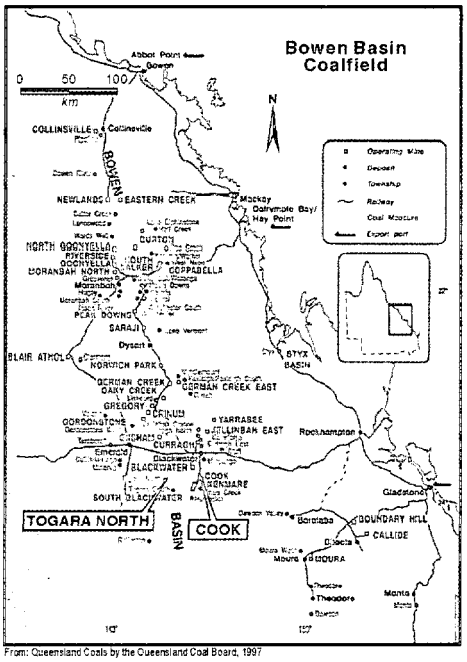


Figure 2.9 - Typical stratigraphic section- Bowen Basin

AGE	AVER. DEPTH (m)	MAJOR STRATIGRAPHIC UNIT	MAJOR COAL SEAM
TERTIARY		Tertiary Strata	
TRIASSIC		Rewan Formation	
LATE PERMIAN	150	Rangal Coal Measures	Aries Castor Pollux Orion
		Fort Cooper Coal Measures (North) Burngrove Formation (South)	Pisces Virgo Libra Leo Aquarius
	300	Fair Hill Formation	Fair Hill
		MacMillan Formation	
		Moranbah Coal Measures (North) German Creek Formation (South)	Pleiades Aquila Tieri Corvus German Creek
	450		
EARLY PERMIAN		Back Creek Group	Blair Athol Coal Measures
		Reids Dome Beds	Alpha Beta Gamma Delta ... Rho



DEPOSIT/MINE

Cook Colliery
Togara North Project

FIGURE **2.9**

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BOWEN BASIN COALFIELD QLD
Typical Stratigraphy

Figure 3.1 – Bulga resources – Lower Whybrow Seam, Redbank Seam, Wambo Seam, Whynot Seam

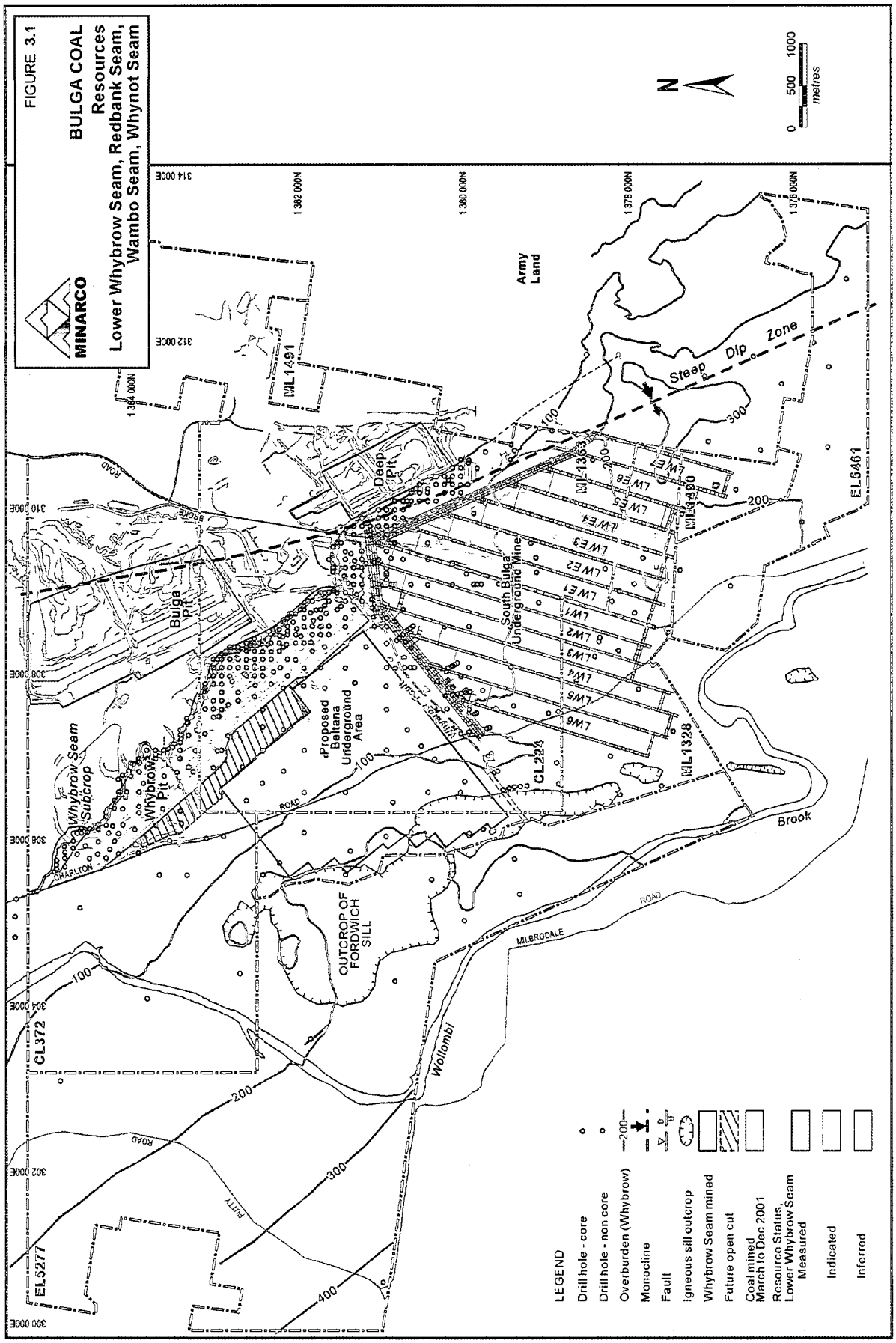


Figure 3.2 – Bulga resources – Blakefield Seam

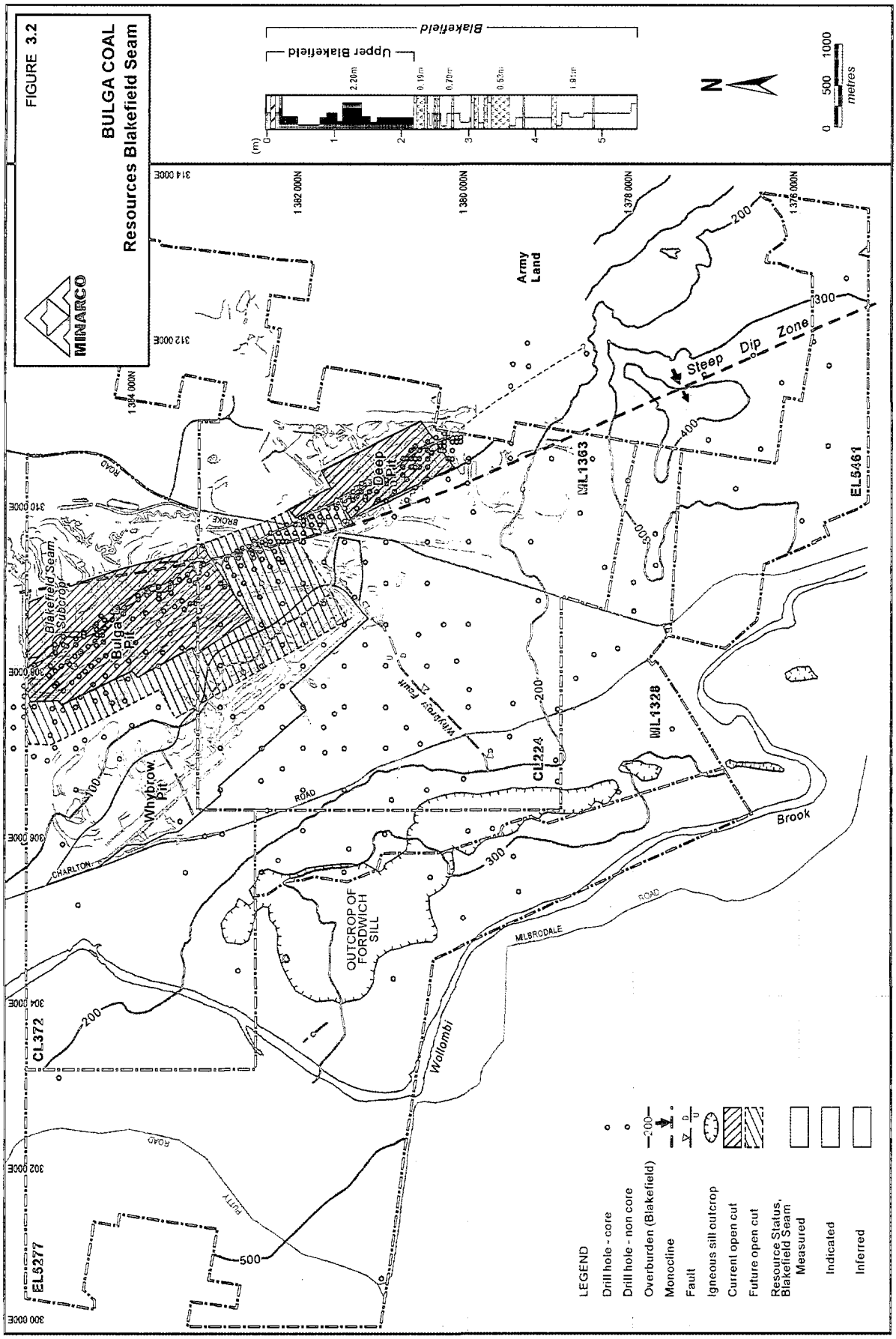


Figure 3.3 – Bulga resources – Glen Munro Seam – Woodlands Hill Seam

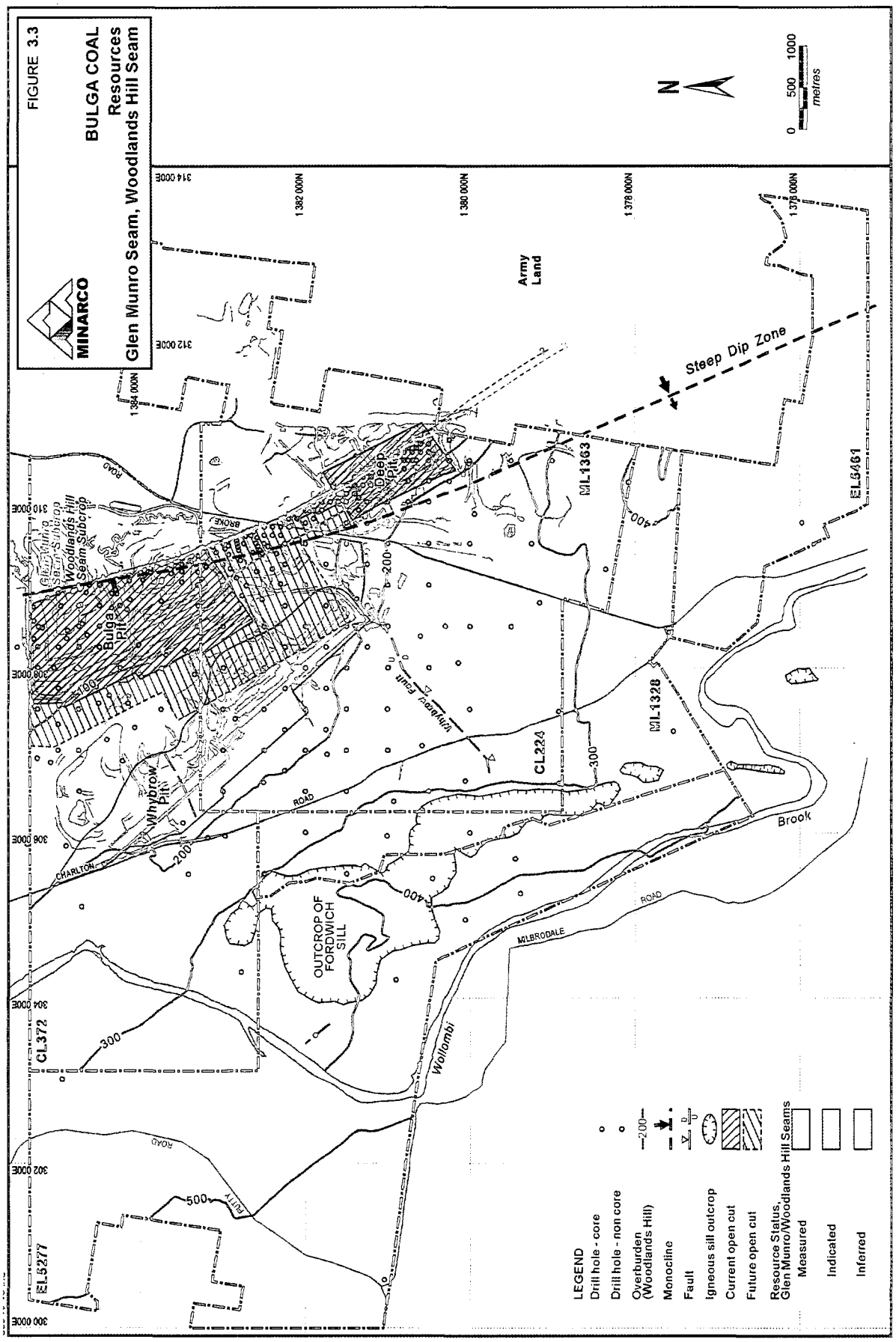


Figure 3.4 – Bulga resources – Piercefield Seam – Vaux Seam

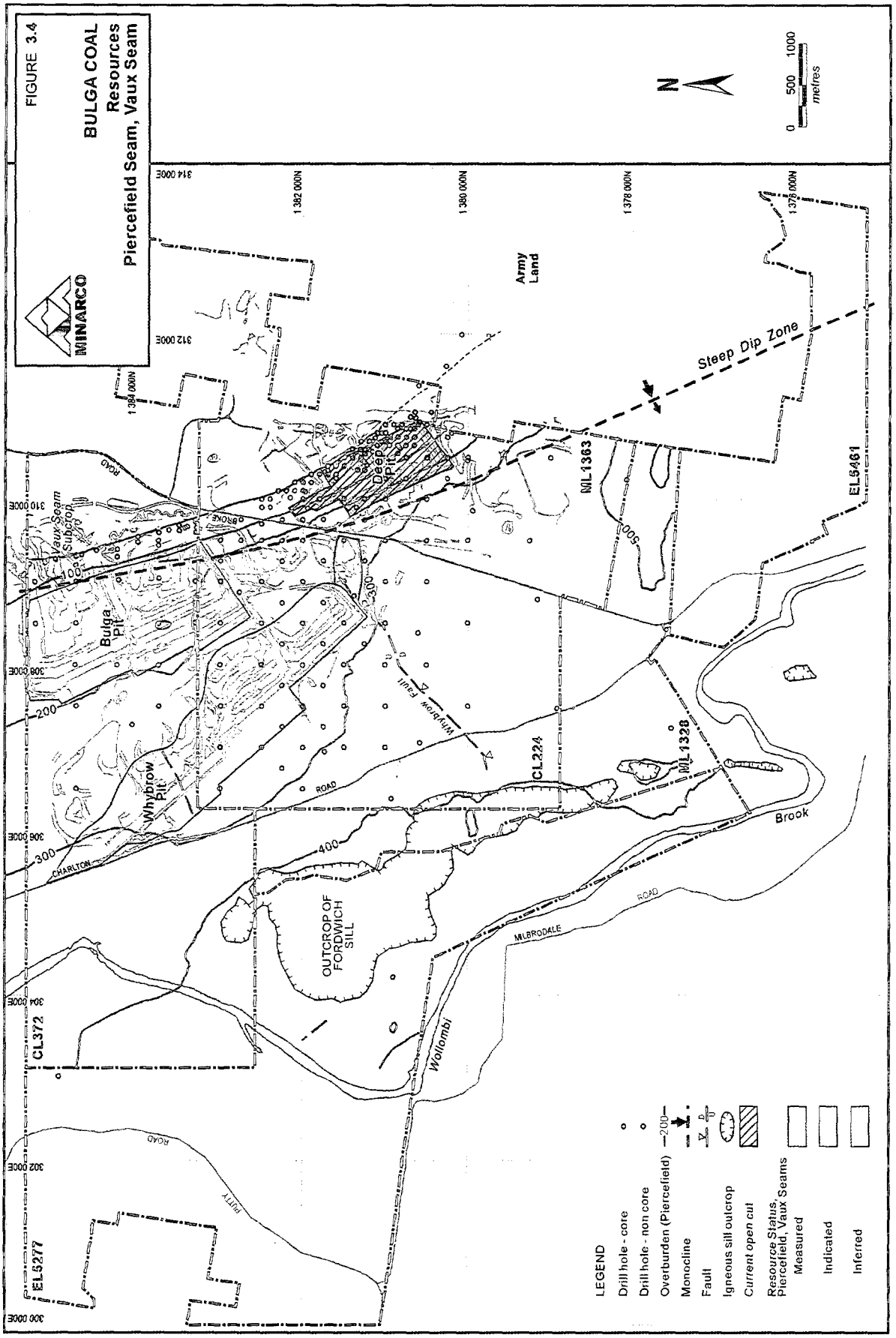


Figure 3.5 – Baal Bone resources – Lithgow Seam

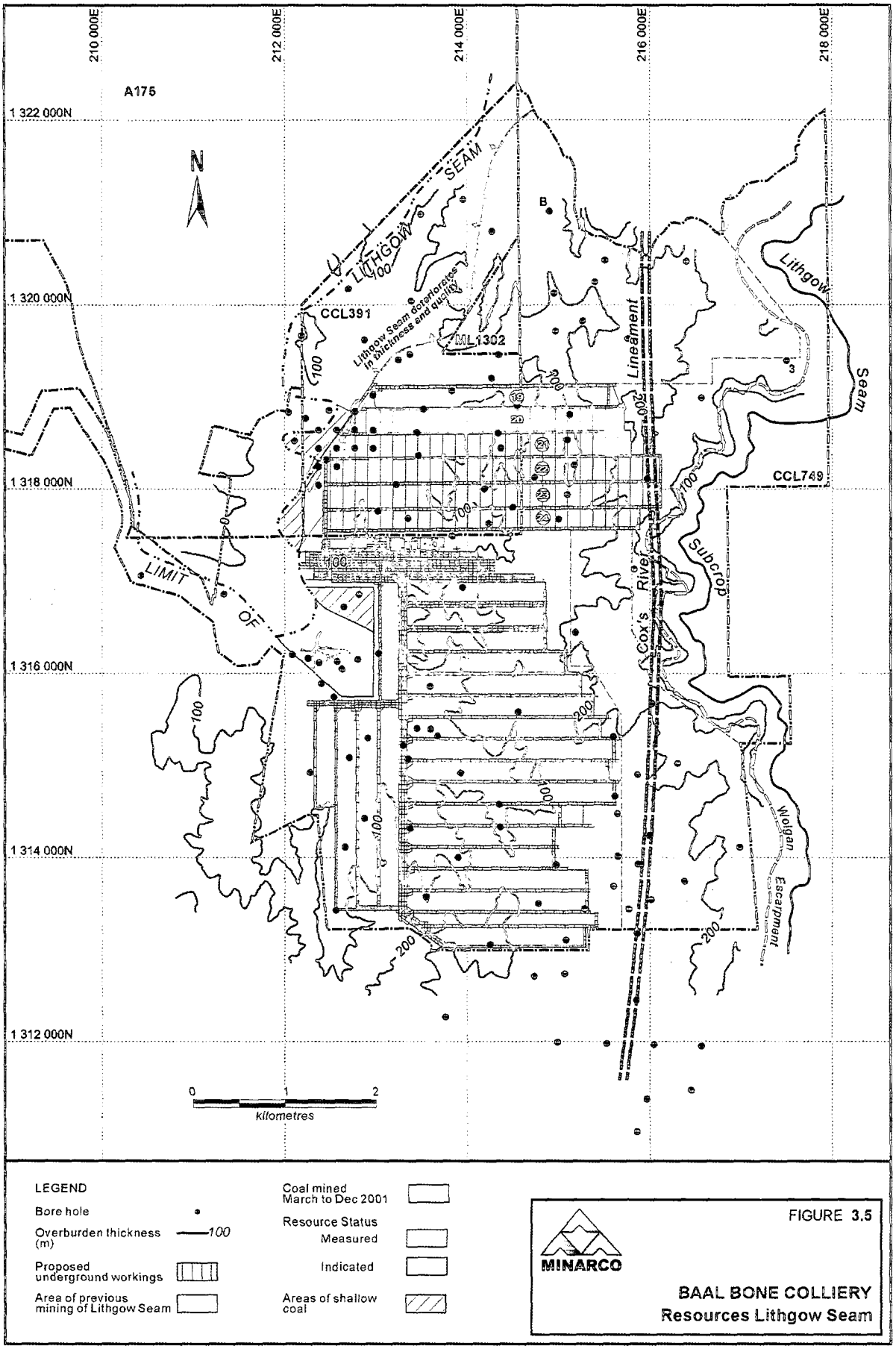


Figure 3.6 – Running Stream resources – Lidsdale / Lithgow Seam

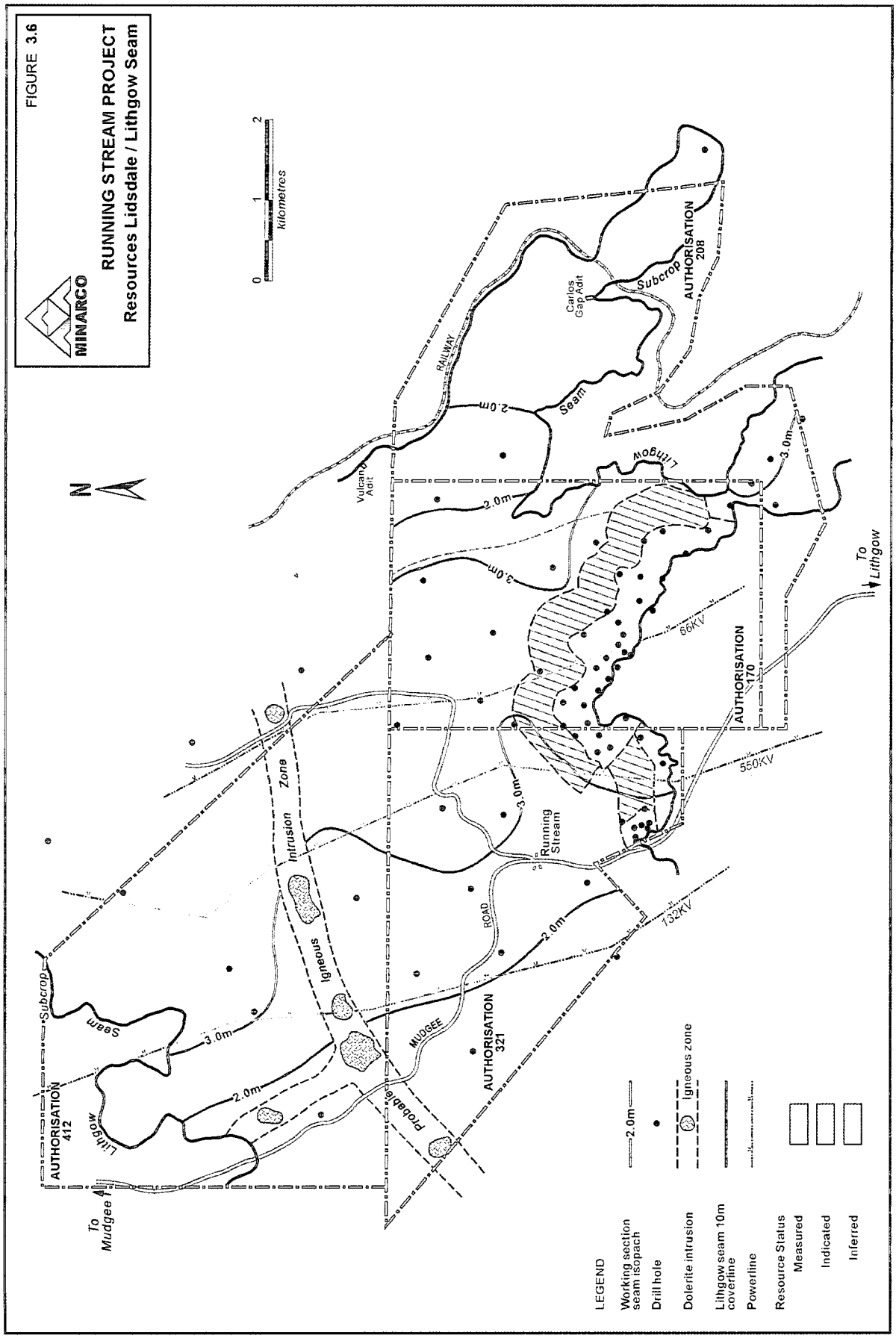


Figure 3.7 - West Wallsend resources - West Borehole Seam

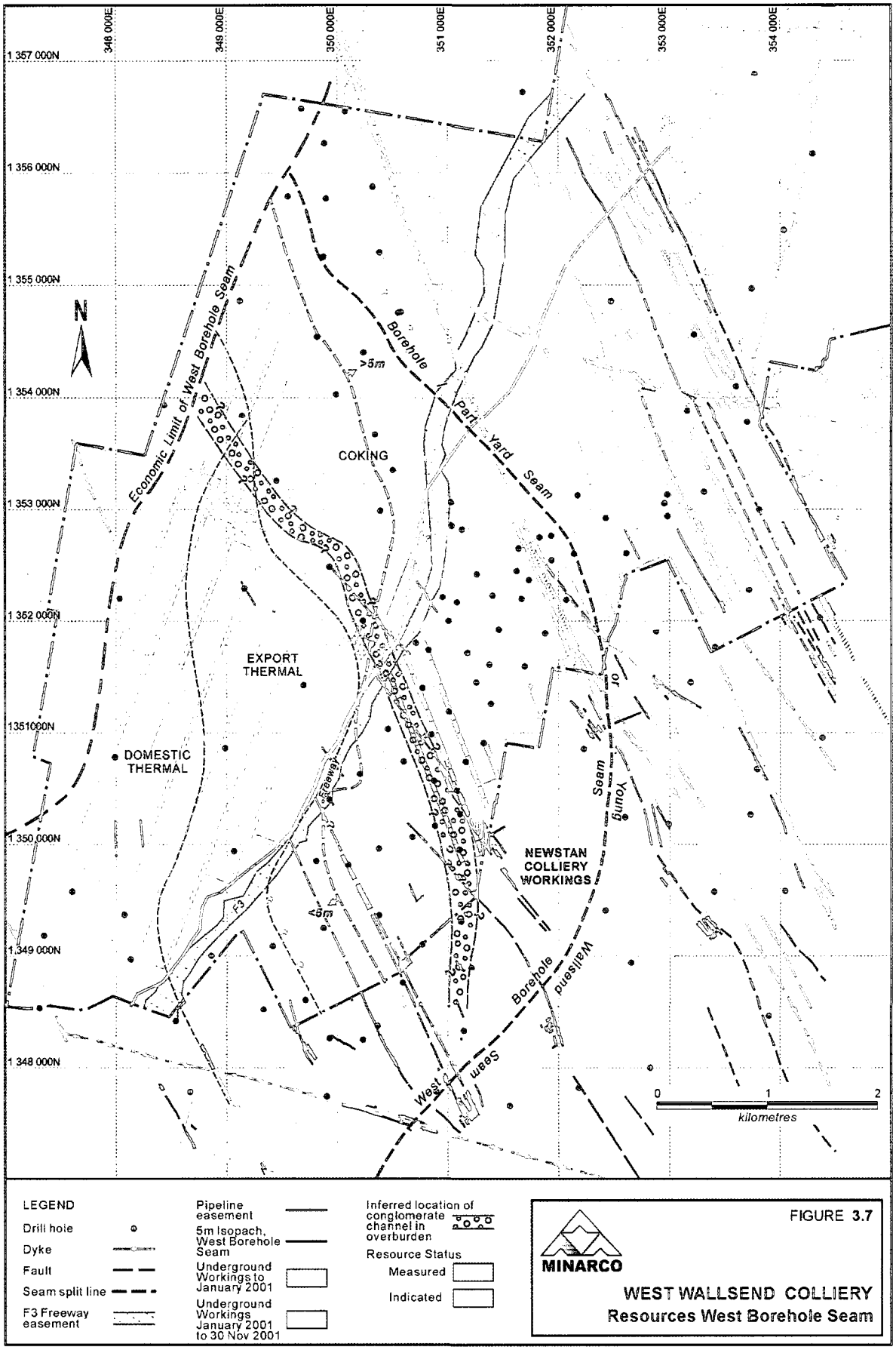


Figure 3.8 – Westside resources – Great Northern Seam

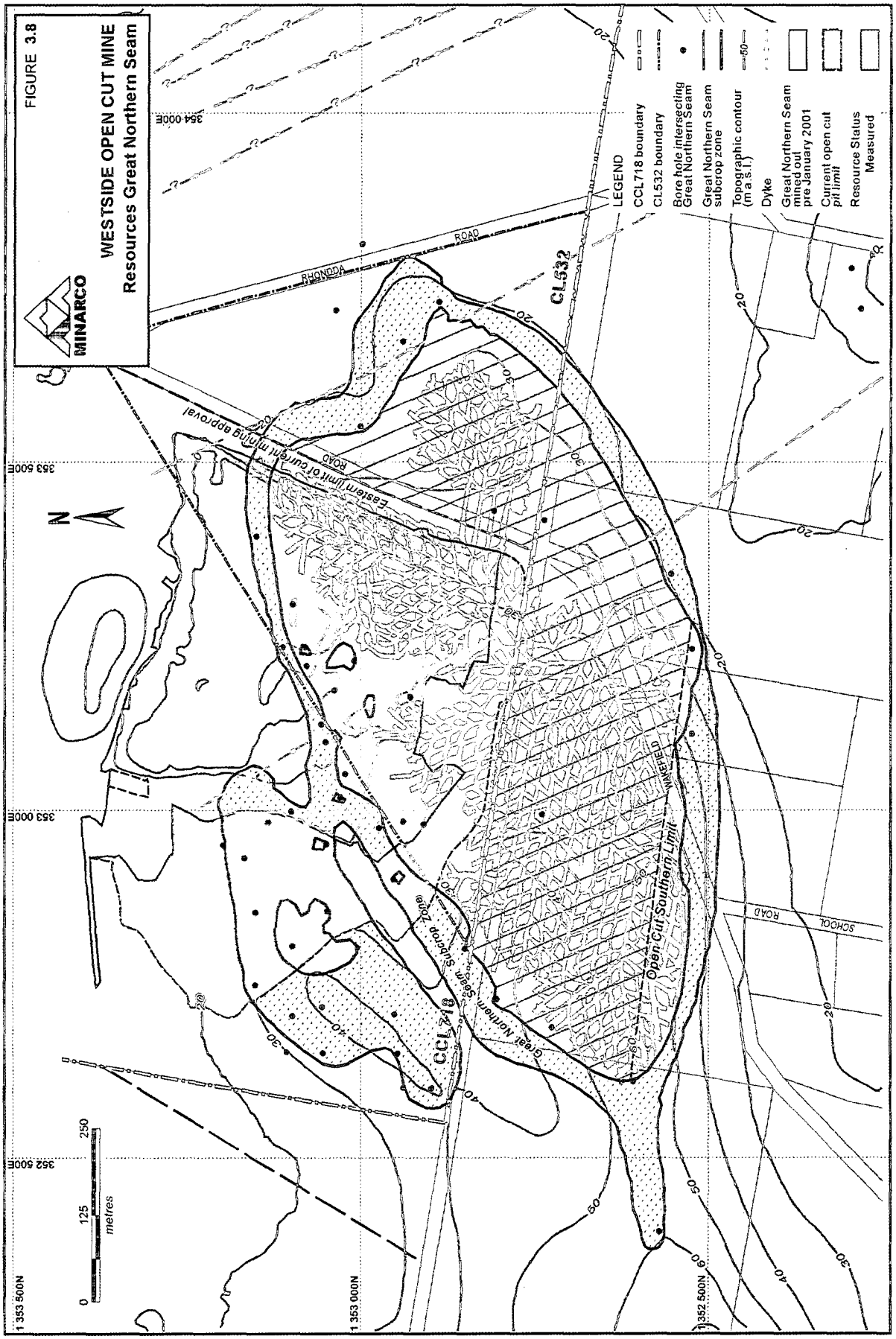


Figure 3.9 – Westside resources – Fassifern Seam

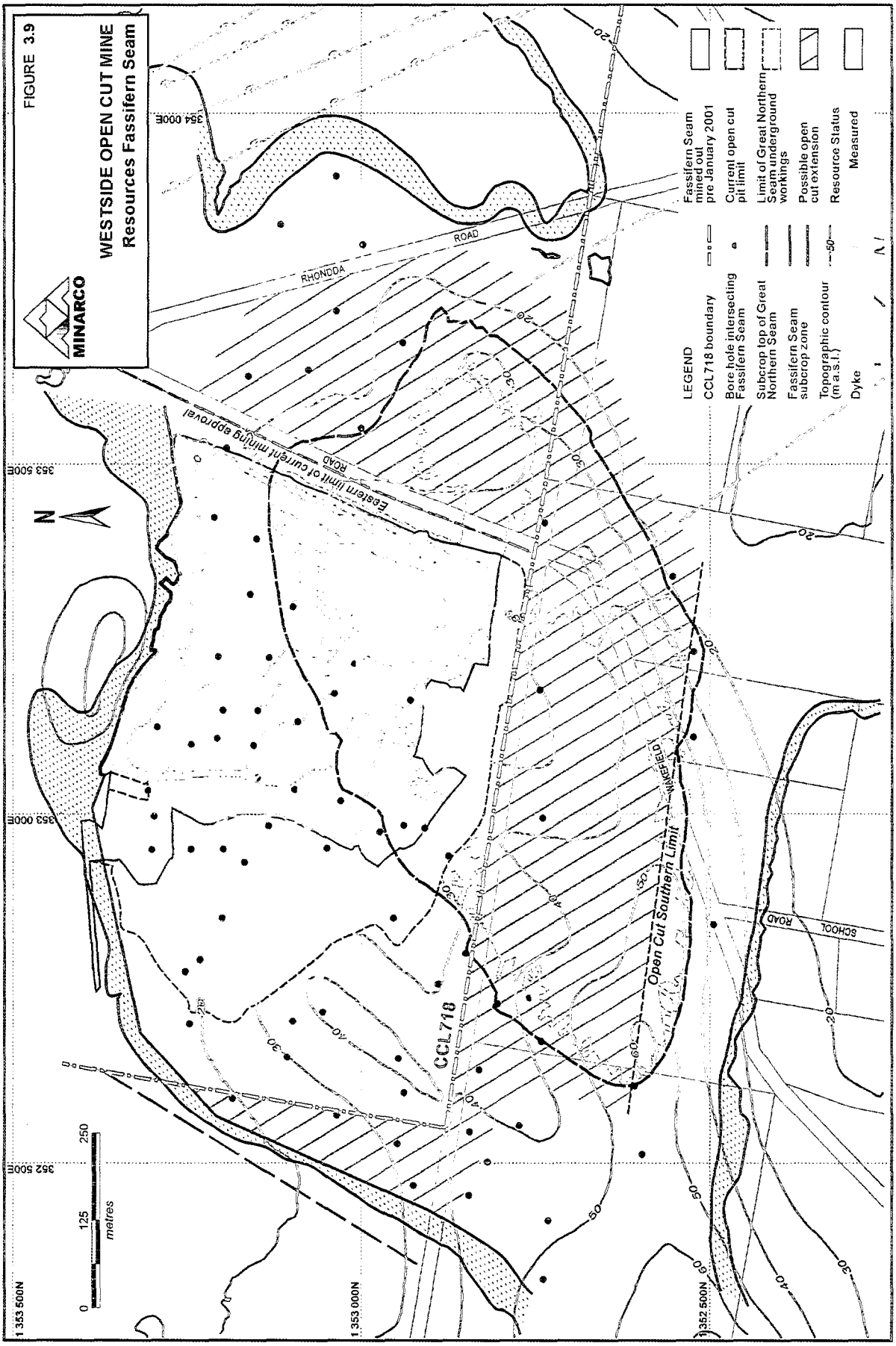


Figure 3.10 – Cardiff Borehole resources – Dudley Seam and Young Wallsend Seam

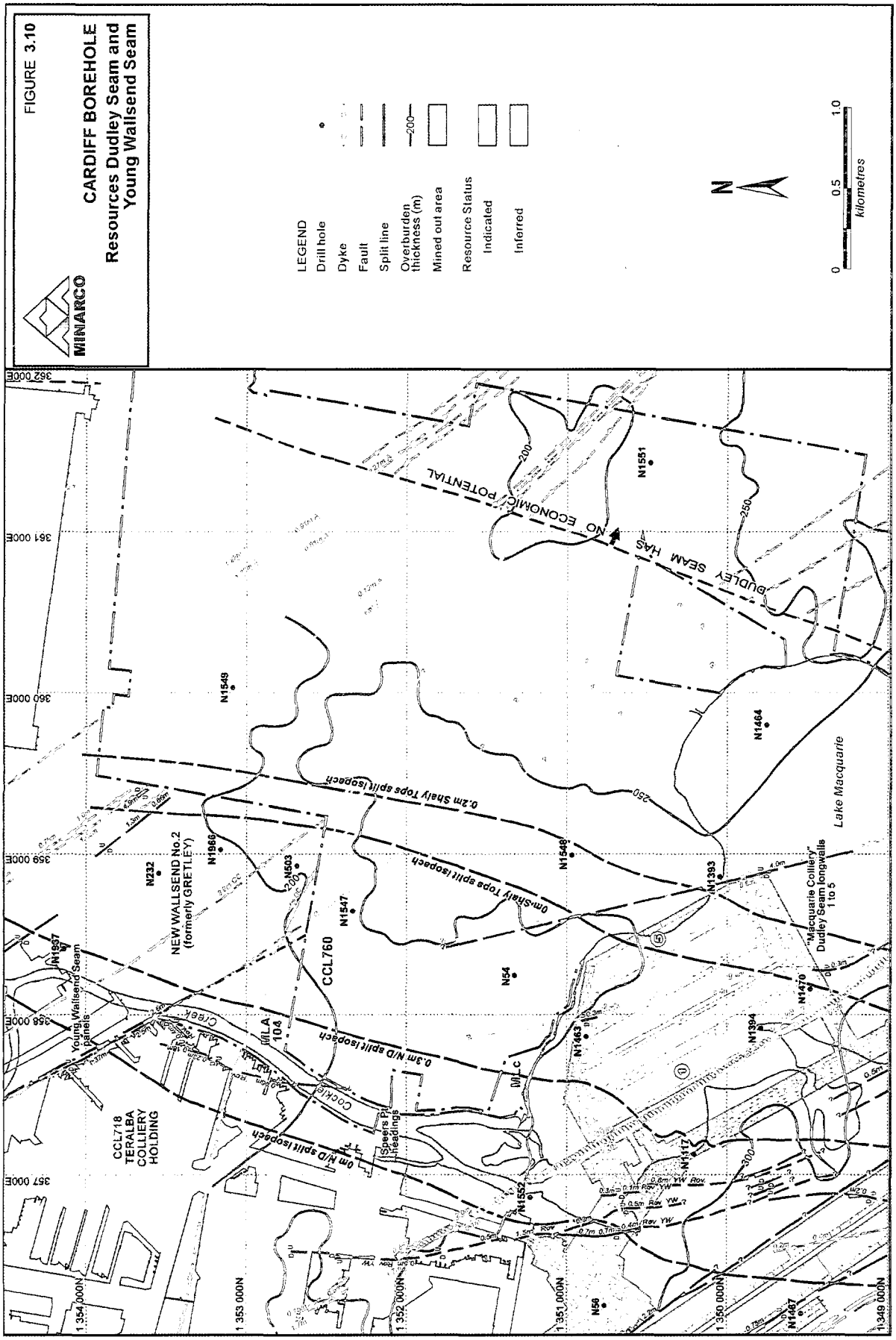


Figure 3.11 – Mitchells Flat resources

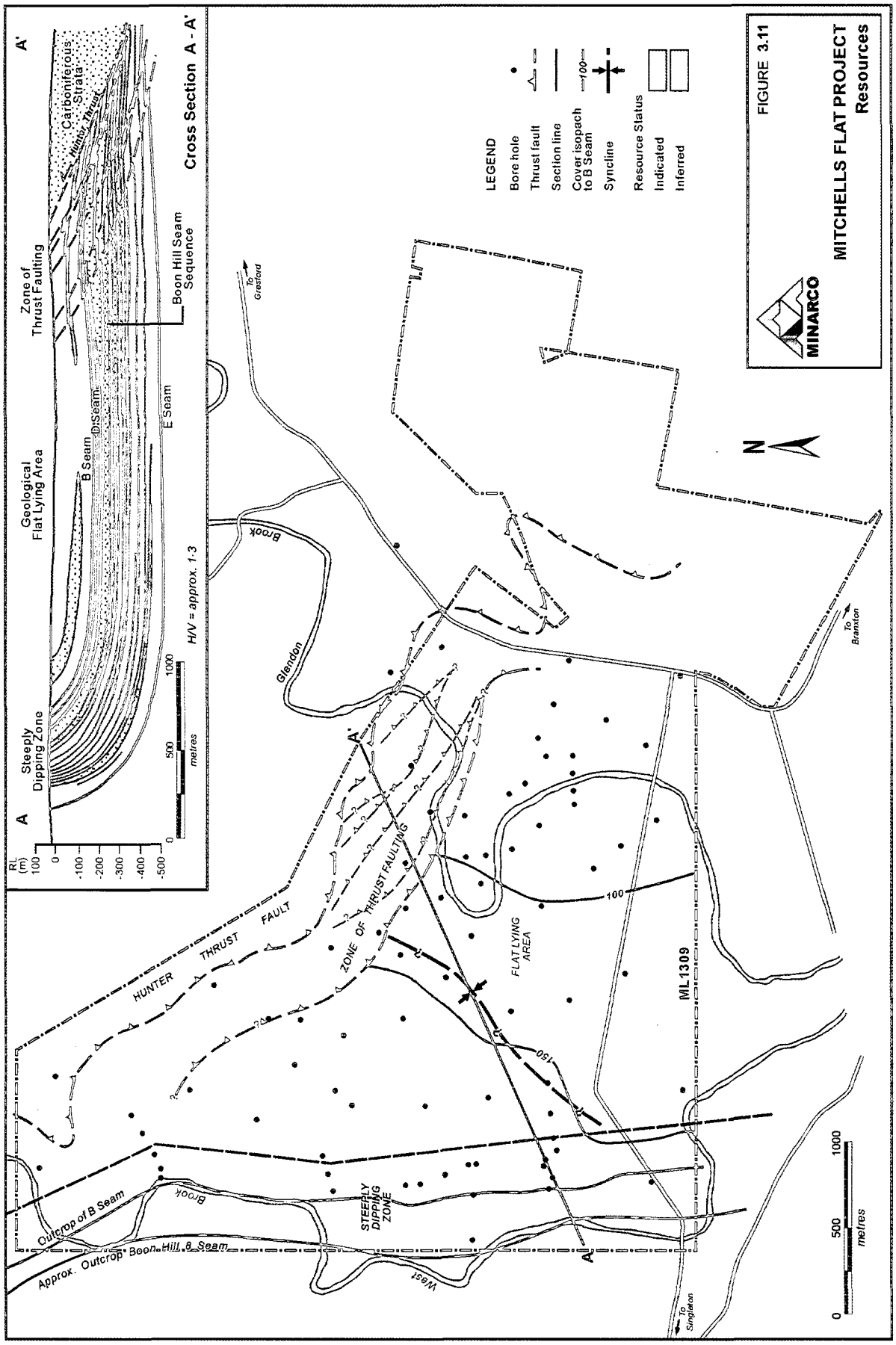


Figure 3.12 – Liddell resources – Lemington Seam

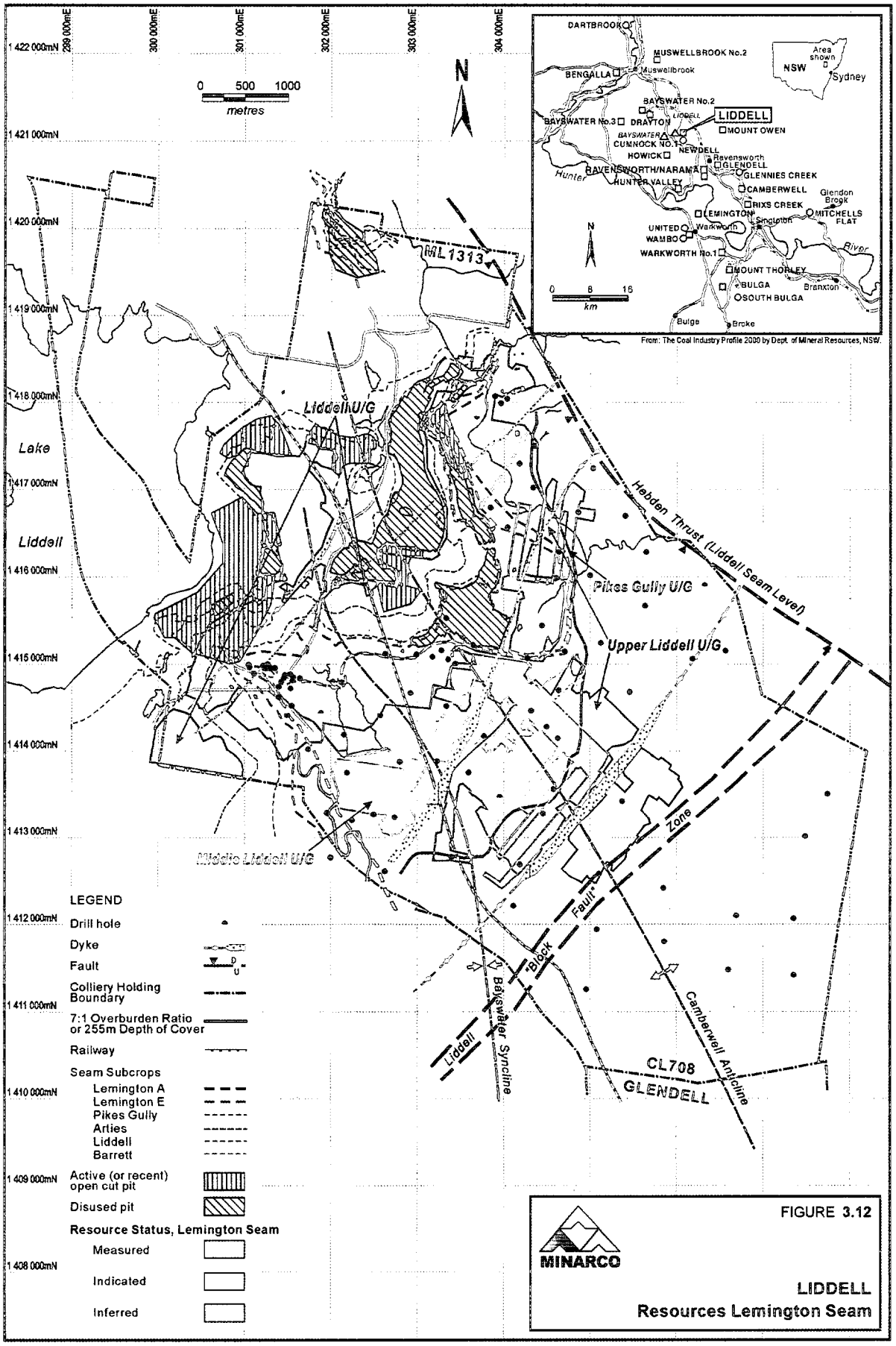


Figure 3.13 – Liddell resources – Pikes Gully Seam

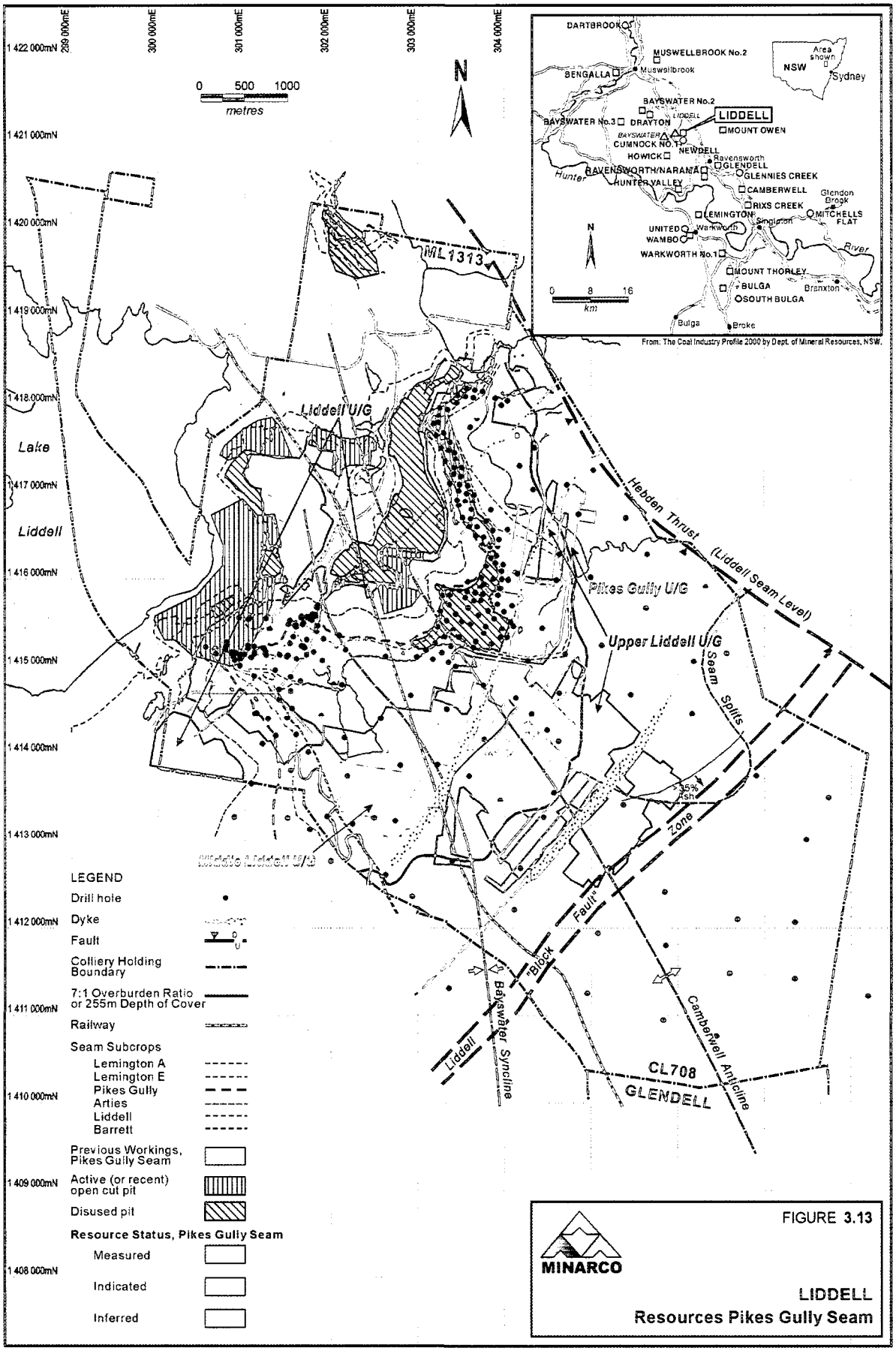


Figure 3.14 – Liddell resources – Arties Seam

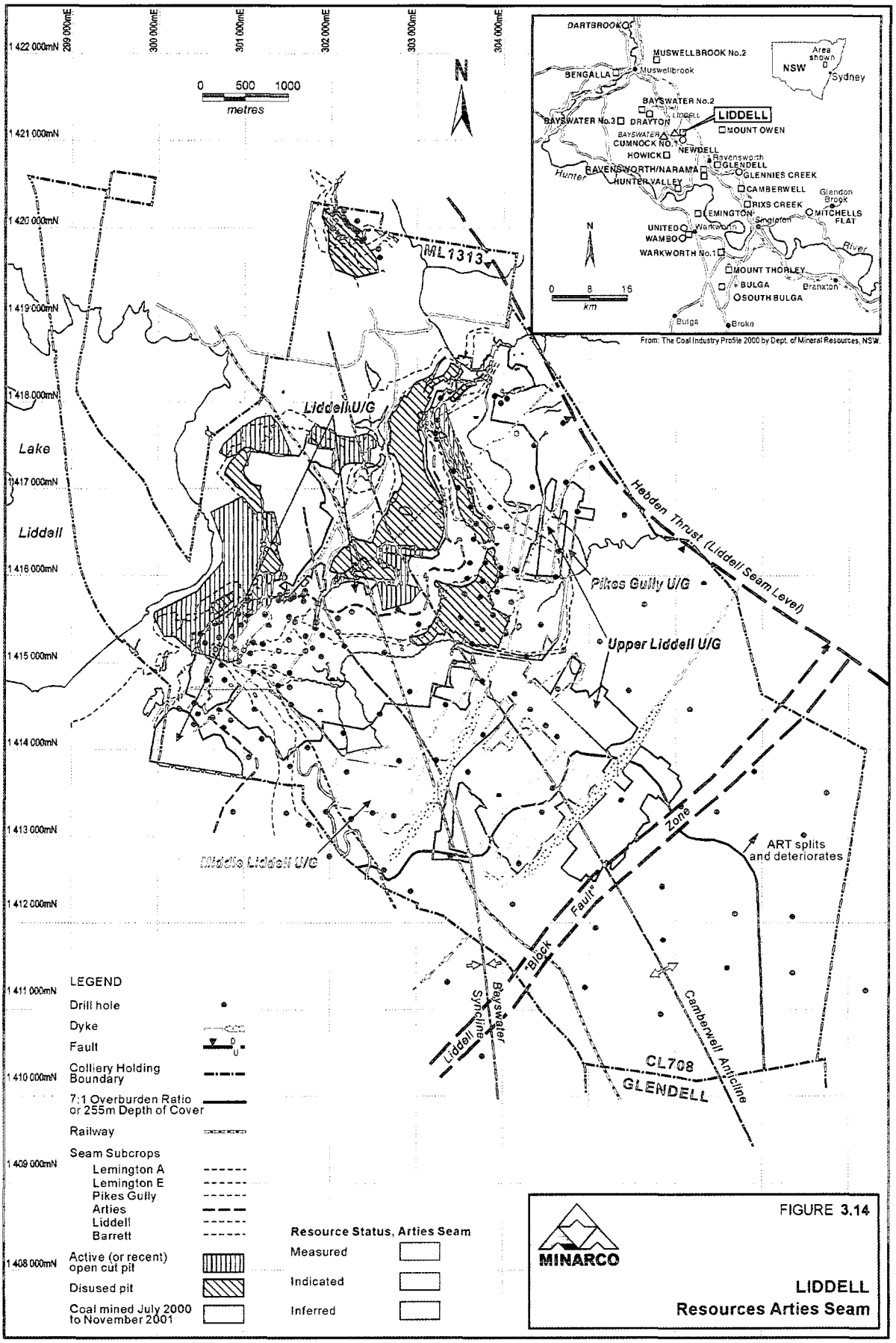


Figure 3.15 – Liddell resources – Liddell, Upper Liddell, Middle Liddell, Lower Liddell Seams

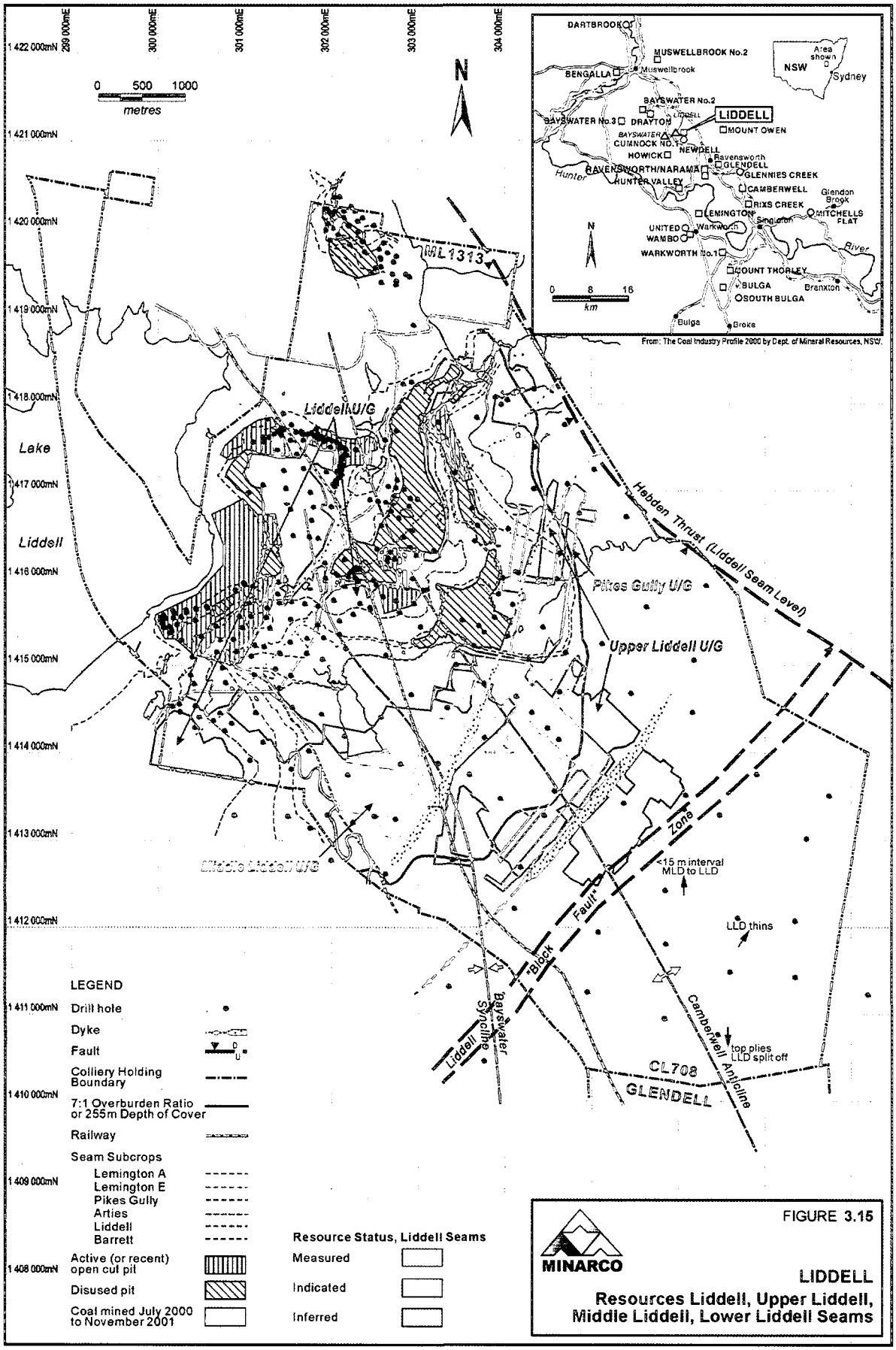


Figure 3.16 – Liddell resources – Barrett Seam

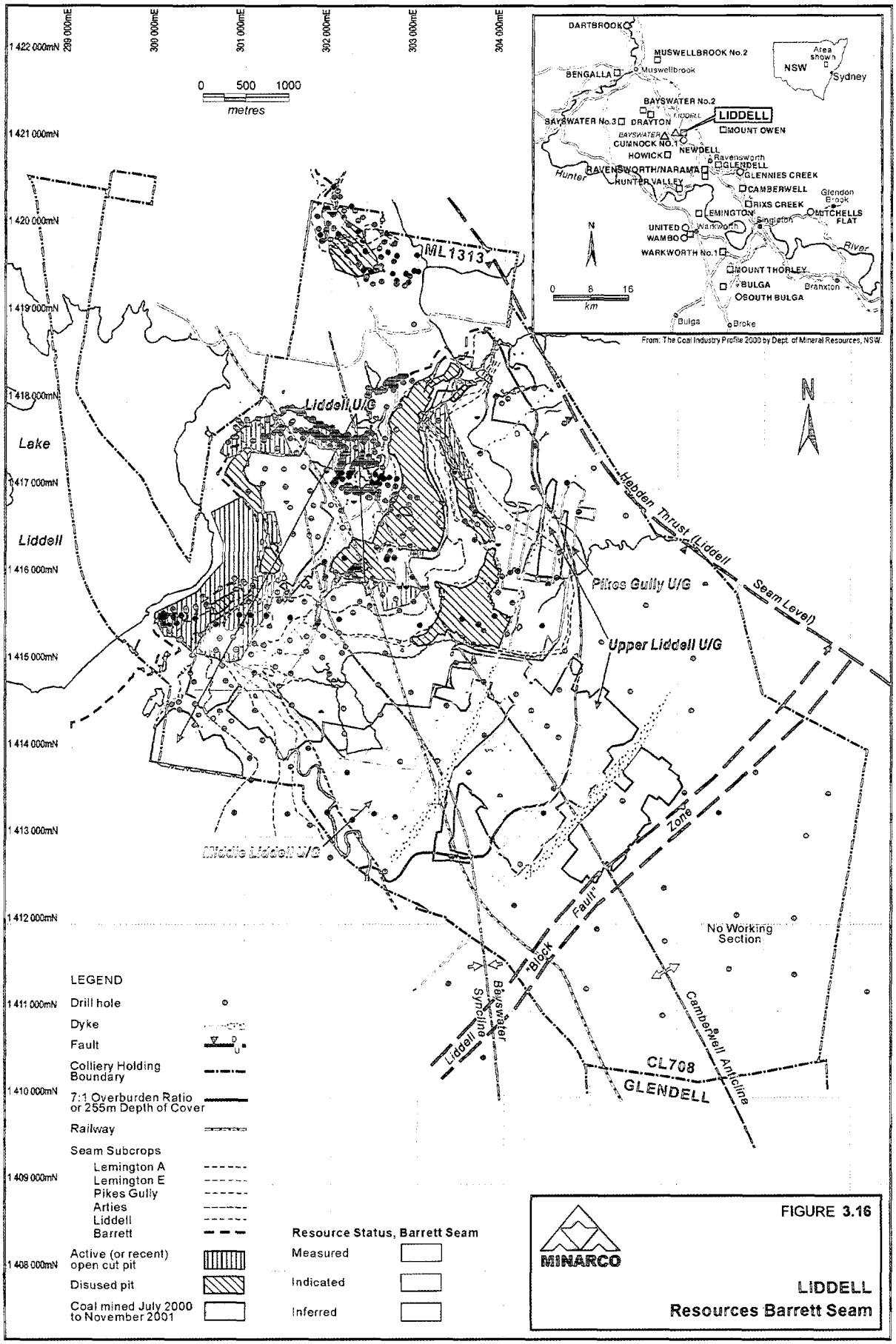


Figure 3.17 - Glendell resources - CL358

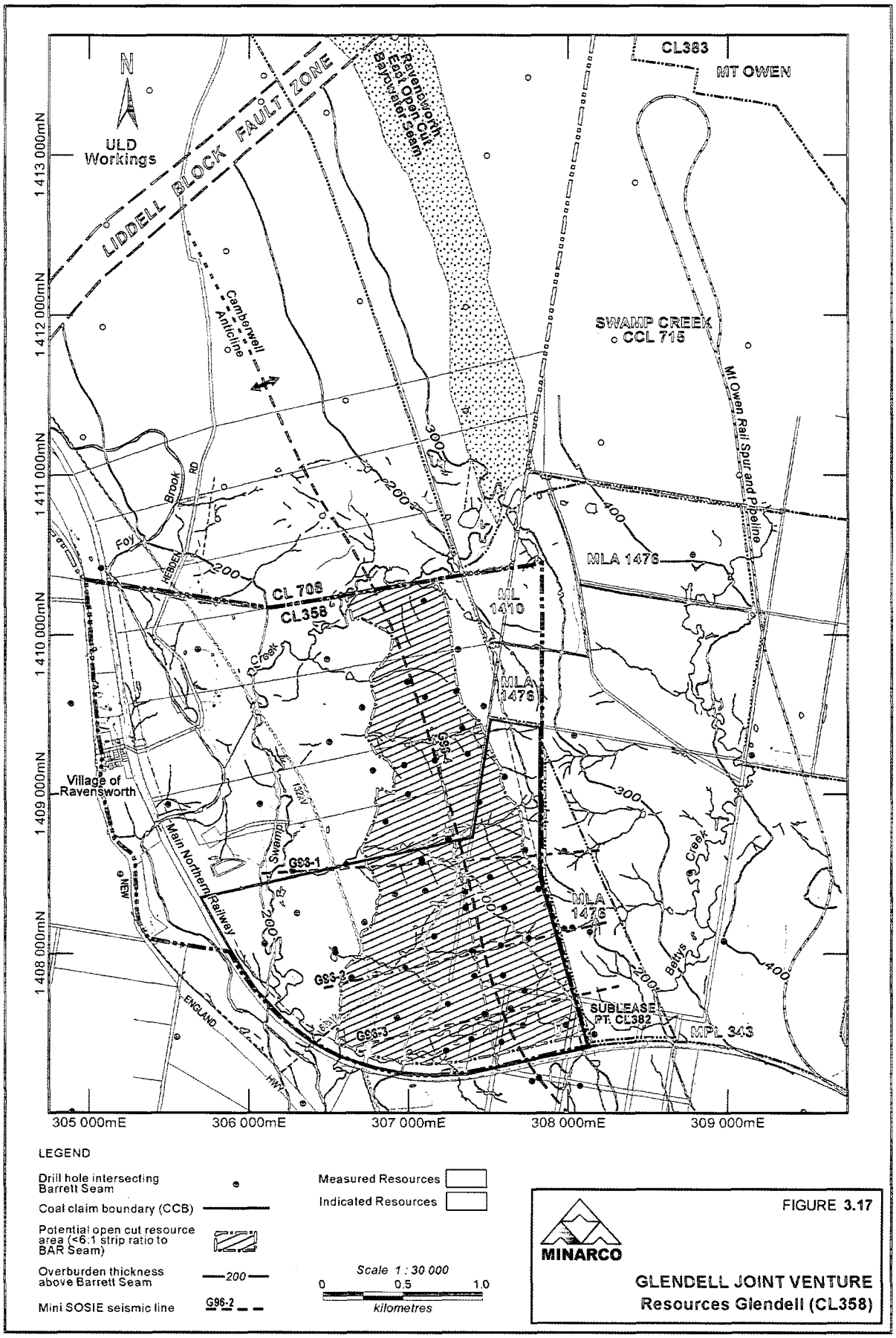
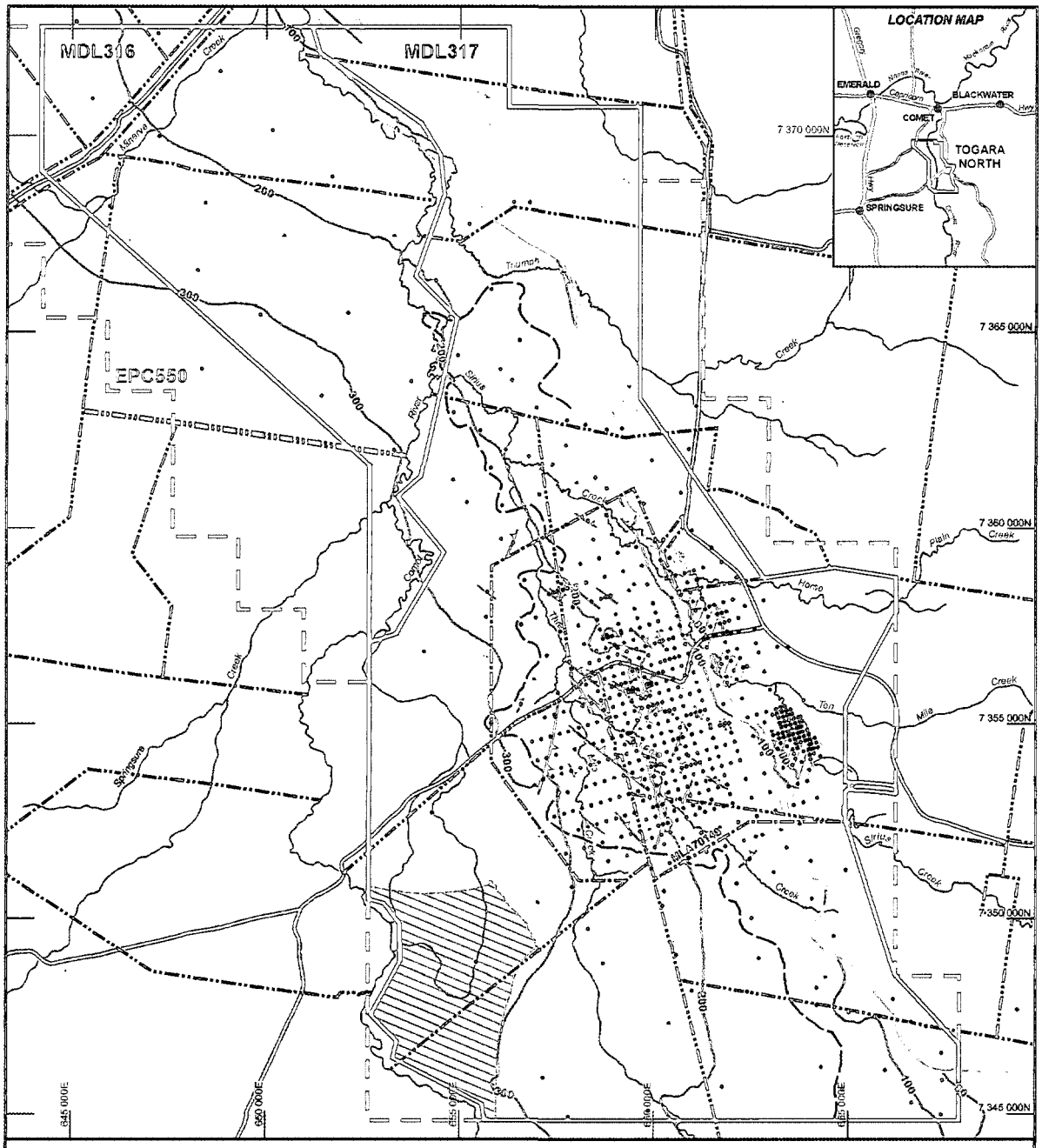


Figure 3.18 – Togara North Coal resources – Pollux Seam and Aries 3 Seam



Pollux Seam resources are estimated for potential underground working section (ie < 4.5m thick). Where seam is split, the Pollux Lower is preferred except in the southwest, where Pollux Upper is the preferred mining section.

N

0 2.5 5.0 kilometres

LEGEND

MLA70149	Depth of cover, Pollux Seam (m)
MDL316/317	Pollux Seam split line
EPC550	
Property boundary	
Pollux Seam subcrop	Resource Status
Drill hole	Measured
Fault	Indicated
Pollux Upper only (Pollux Lower deteriorated)	Open Cut Resources

MINARCO

FIGURE 3.18

TOGARA NORTH

Resources Pollux Seam and Aries 3 Seam

Figure 3.19 – Cumnock resources – Lower Pikes Gully Seam

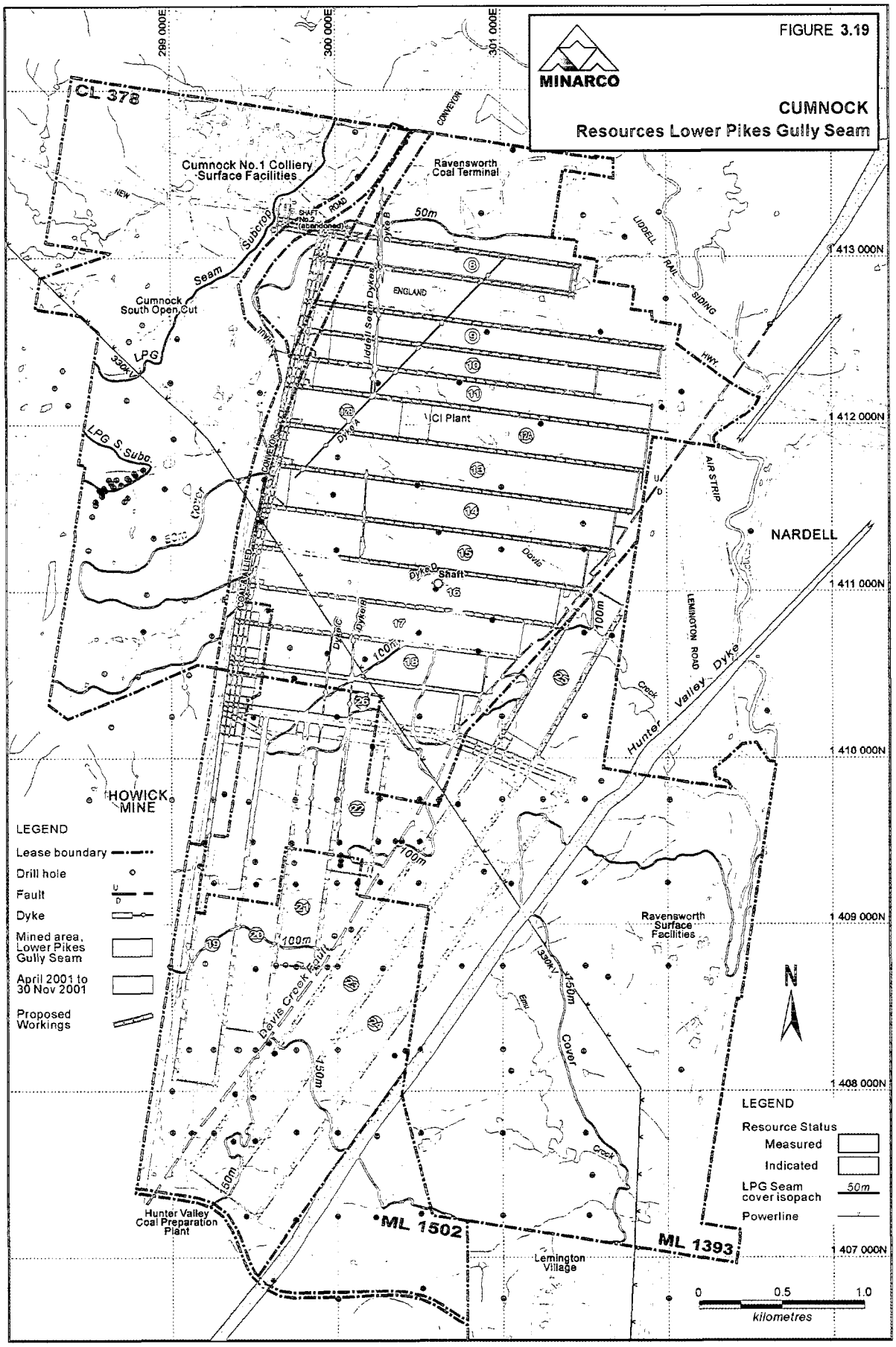


Figure 3.20 – Cumnock resources – Upper Liddell Seam

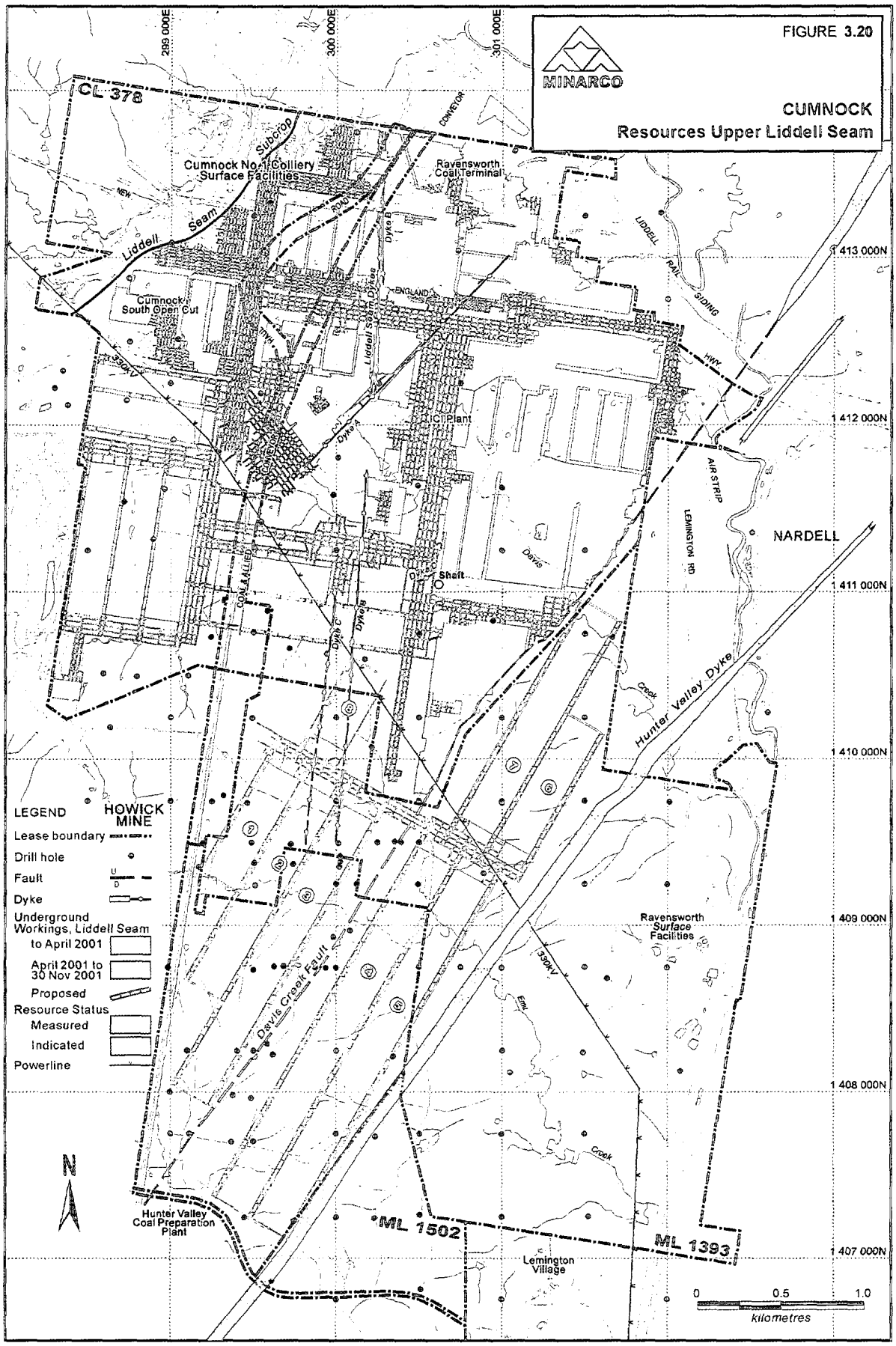


Figure 3.21 – Cumnock resources – Barrett Seam

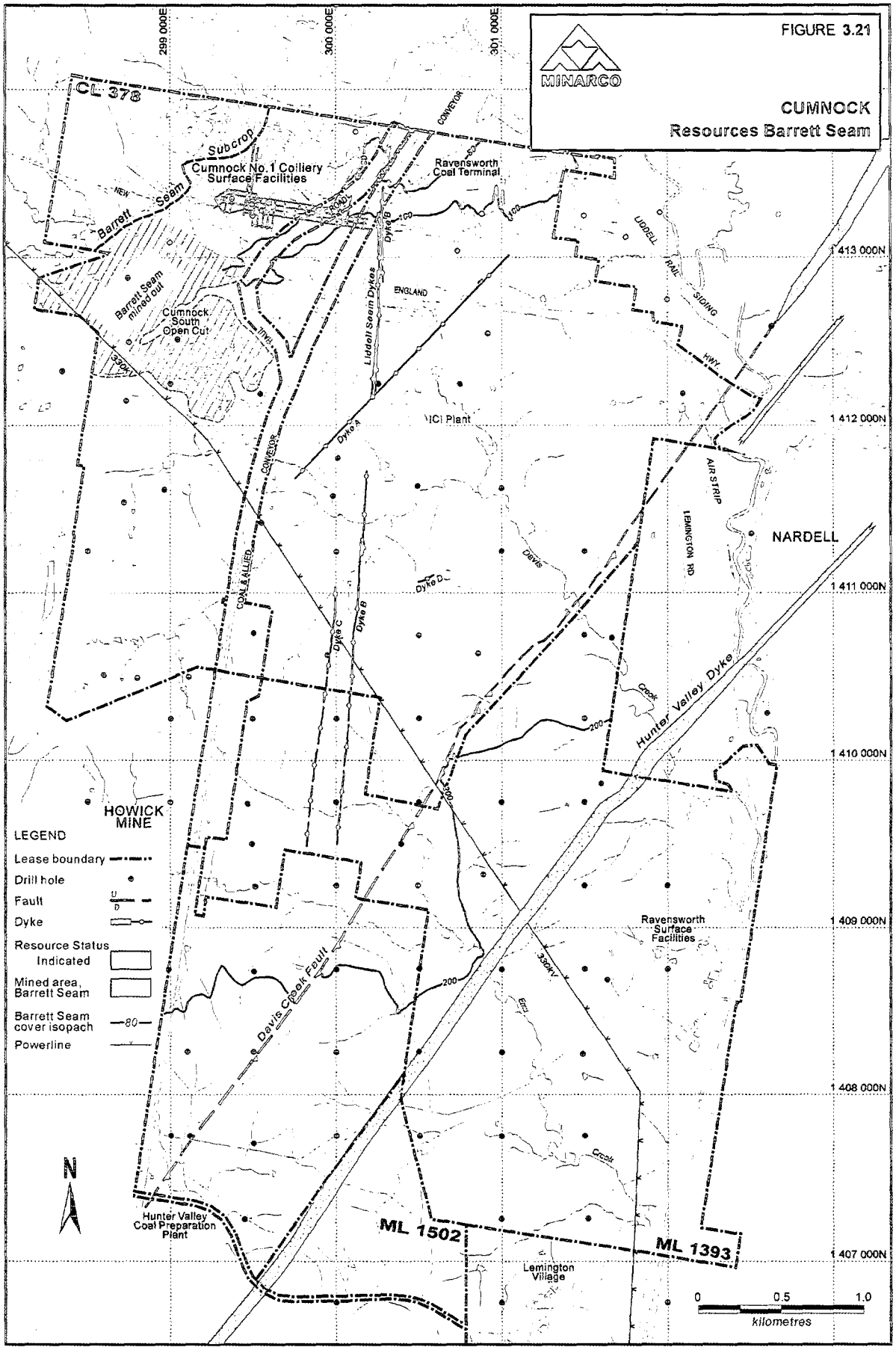


Figure 3.22 – Cumnock resources – Bayswater, Lemington, Upper Pikes Gully Seams

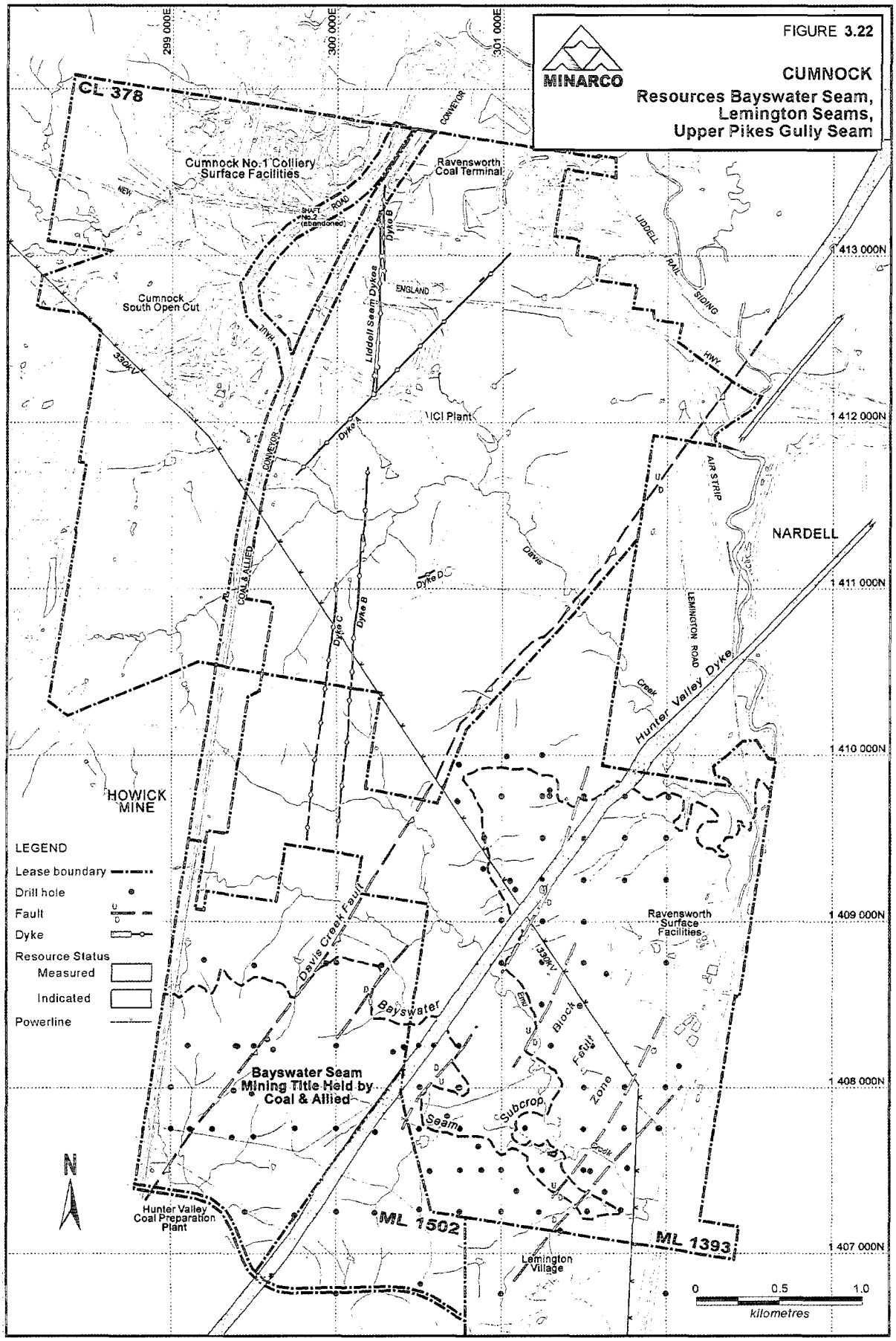


Figure 3.23 – Mount Owen resources – Lemington, Lower Hebden Seams

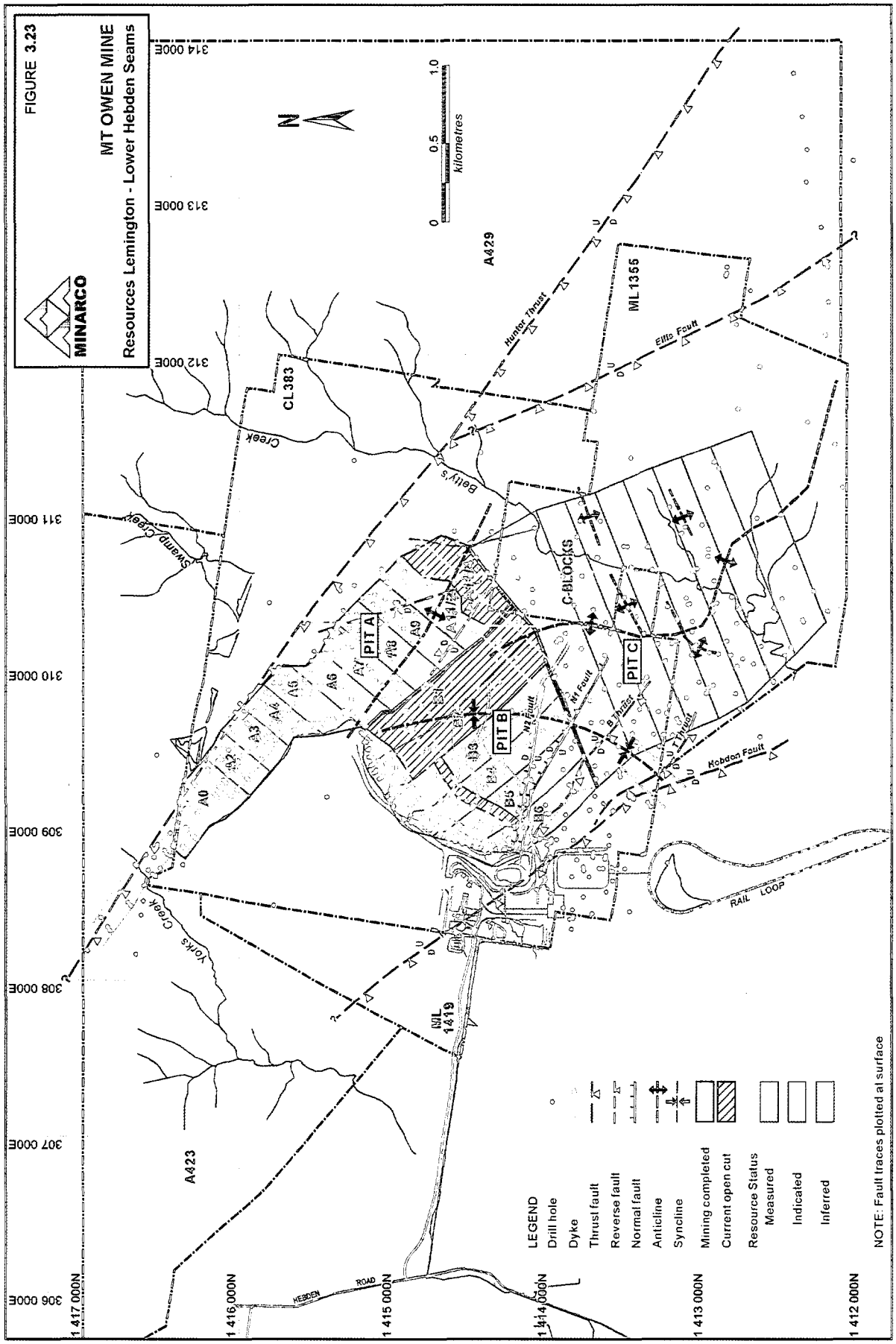


Figure 3.24 – Cook resources

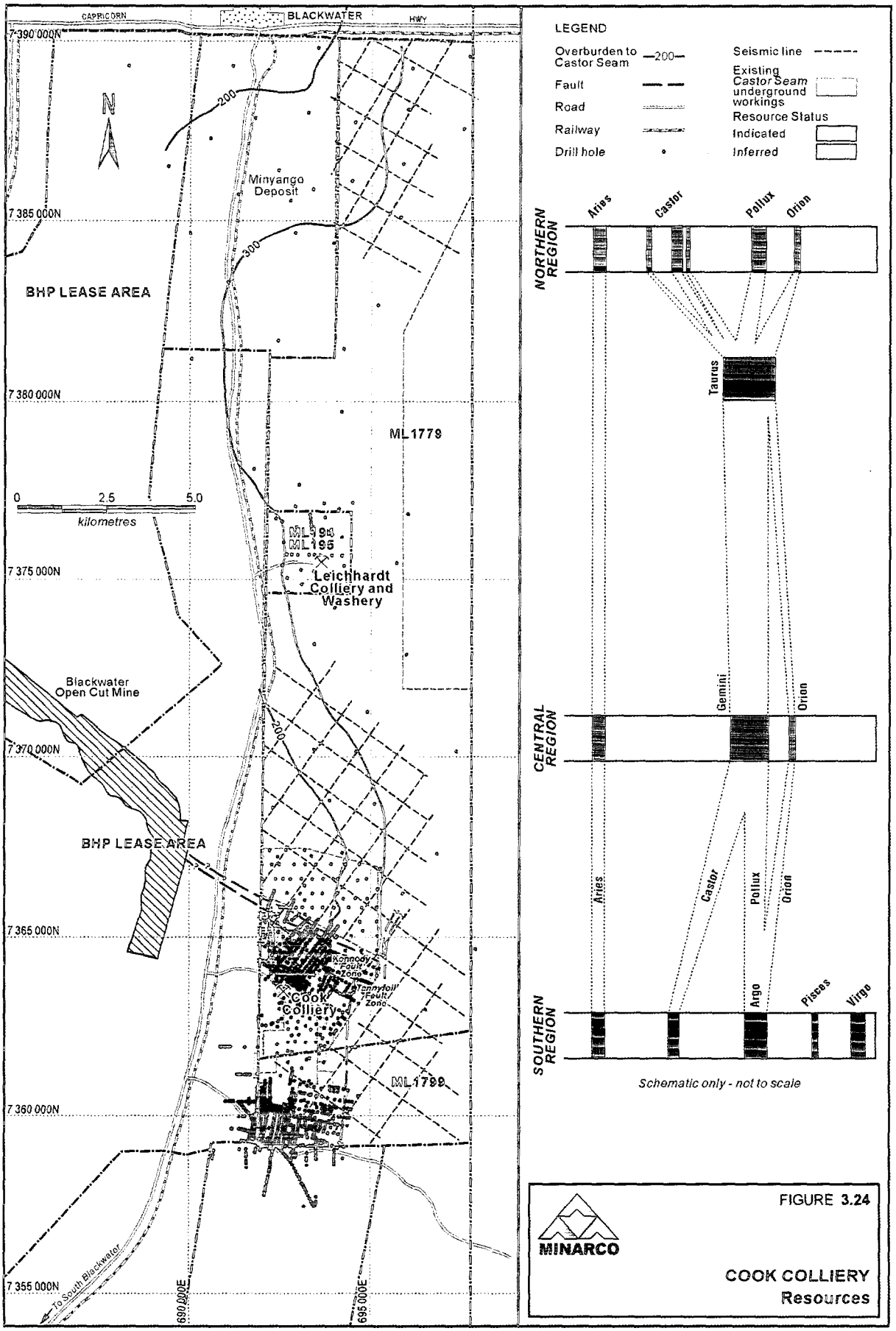


Figure 3.25 – United resources – Woodlands Hill Seam

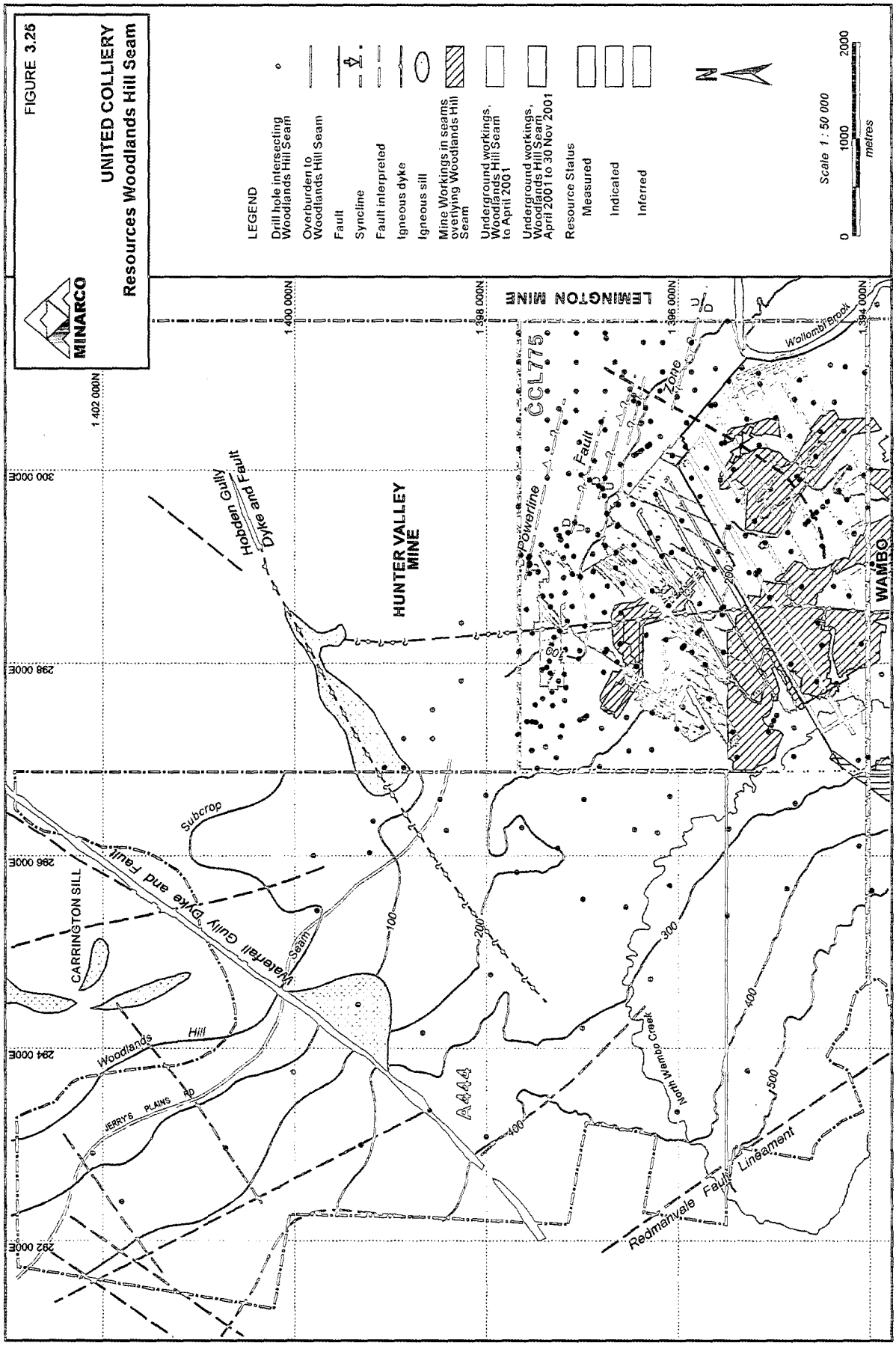


Figure 3.26 – Ulan resources – Ulan Seam

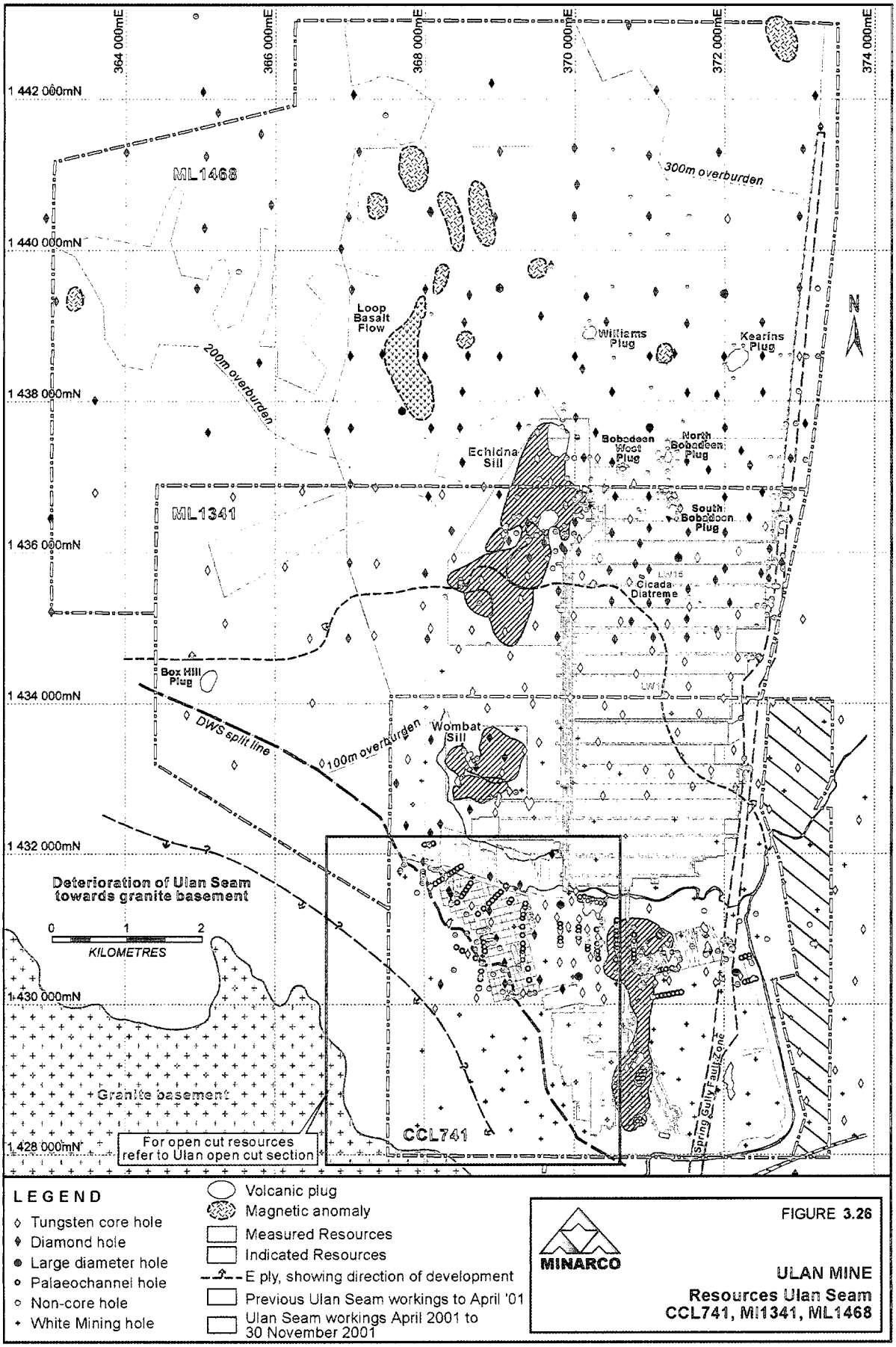
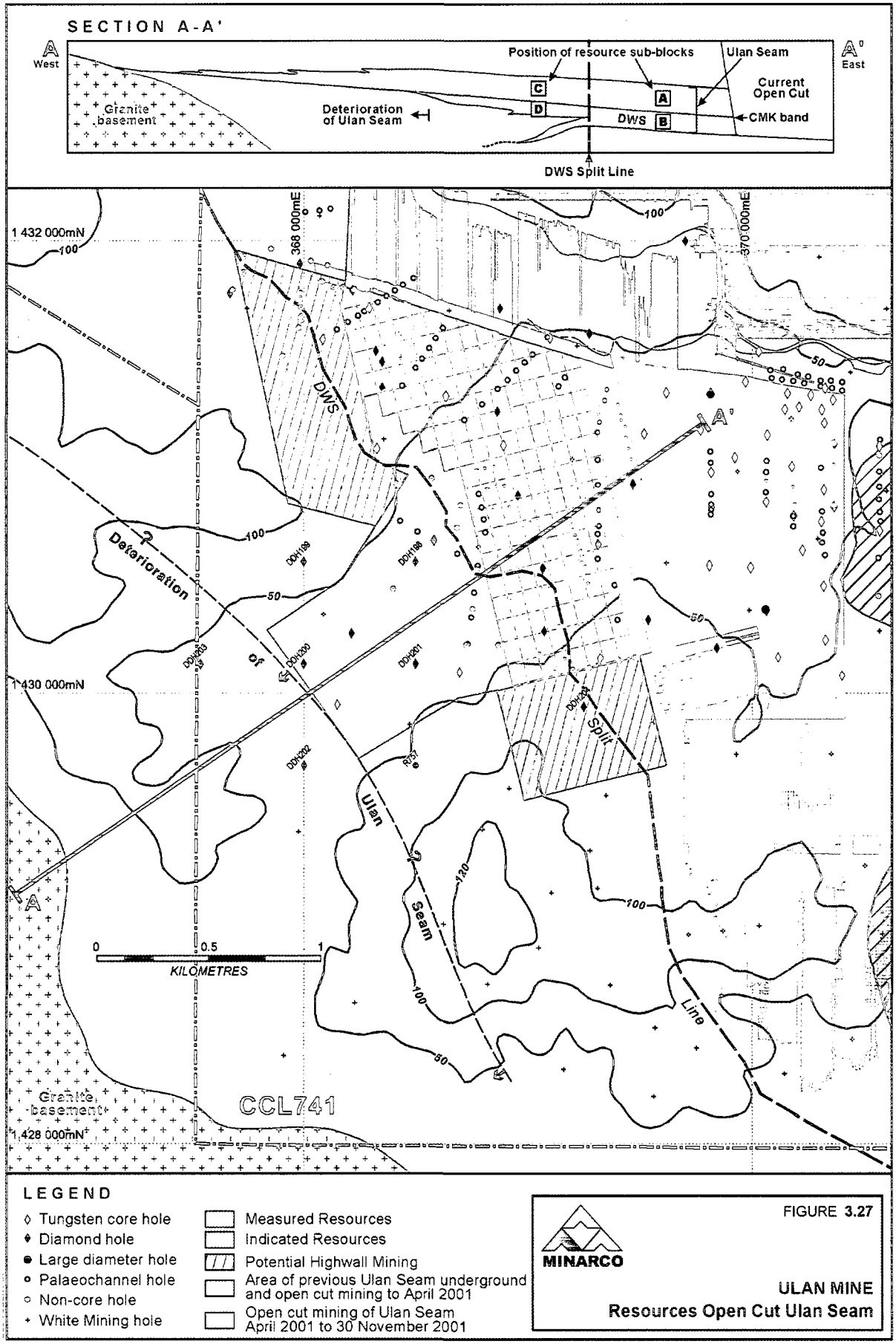


Figure 3.27 – Ulan resources – Opencut resources Ulan Seam



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20 March 2002

Dear Sirs

COMPETENT PERSON'S REPORT FOR THE SOUTH AFRICAN COAL ASSETS HELD BY THE DUIKER GROUP

1. Introduction

1.1 Purpose of report

This report has been prepared by Weir International Mining Consultants ("WIMC") for inclusion in listing particulars (the "Listing Particulars") to be published by Xstrata plc (the "Company") in connection with a global offer of ordinary shares in the Company (the "Global Offer") and the proposed admission of the ordinary shares of the Company to the Official List of the UK Listing Authority (the "UKLA") and the admission of such shares to trading on London Stock Exchange plc's market for listed securities.

WIMC was instructed by the directors of the Company to conduct an independent technical review of the South African coal assets held by Duiker Mining (Proprietary) Limited ("Duiker") and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings (the "Duiker Group"). This report, which summarises the findings of our review, has been prepared in order to satisfy the requirements of a competent person's report as set out in Chapter 19 of the listing rules of the UKLA.

WIMC has conducted its review in accordance with the requirements of Chapter 19 of the listing rules of the UKLA and, with respect to resources and reserves, the "Australasian Code for Reporting Mineral Resources and Reserves" (September 1999) published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia (the "JORC Code"). The JORC Code establishes the nature of evidence required to ensure compliance with the JORC Code. The review was conducted with regard to the JORC Code because it is internationally recognised. In this report, all resource and reserve estimates are reported in accordance with the JORC Code and have been substantiated by evidence obtained from our site visits and observation. They are supported by details of drilling results, analyses and other evidence and take account of all relevant information supplied to us by the Duiker Group's management and the directors of the Company.

In accordance with Chapter 19 of the listing rules of the UKLA, only Proved and Probable Reserves have been valued. Other assets of the Duiker Group, which include extensive resources, have not been valued.

1.2 Capability and independence

This report was prepared on behalf of WIMC by the signatories to this report, details of whose qualifications and experience are set out in Annex A to this report.

WIMC operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to the resources and financial services industry.

WIMC will receive professional fees for its preparation of this report. However, none of WIMC or its directors, staff or sub-consultants who contributed to this report has any interest in:

- the Company or the Duiker Group; or
- the mining assets reviewed; or
- the outcome of the Global Offer.

Drafts of this report were provided to the Duiker Group, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

1.3 Scope of work/limitations and exclusions/materiality

WIMC reviewed the assets in accordance with the scope of work and exclusions and limitations and on the basis of the materiality criteria set out in Annex B to this report.

WIMC has independently assessed the assets of the Duiker Group by reviewing pertinent data, including resources, reserves, manpower requirements, environmental issues and the life-of-mine ("LOM") plans relating to productivity, production, operating costs, capital expenditures and revenues. All opinions, findings and conclusions expressed in this report are those of WIMC and its sub-consultants.

1.4 Inherent mining risks

Coal mining, and in particular underground coal mining, is carried out in an environment where not all events are predictable. While an effective management team can, firstly, identify the known risks and secondly, take measures to manage and mitigate these risks, there is still the possibility of unexpected and unpredictable events occurring. It is not possible therefore to remove totally all risks or state with certainty that an event that may have a material impact on the operation of a coal mine, will not occur.

1.5 Glossary of terms

Words and expressions used in this report are defined in Part X of the Listing Particulars.

2. Overview

2.1 Description of assets

The Duiker Group is one of South Africa's major coal producers. The company supplies a variety of coal products to inland customers and for export. The Duiker Group owns a 100% interest in nine operating mines and has interests in five joint venture mines. The Duiker Group mines are located near the towns of Witbank, Breyten and Ermelo, approximately 110 kilometres east of Johannesburg, South Africa as shown on **Figures 1** and **2**.

Tavistock Collieries Ltd., a wholly-owned subsidiary of Duiker, owns 100% of the Tavistock mine ("Tavistock") and the Phoenix and South Witbank mines. In addition, it has a stake in two joint ventures. The Tavistock/TESA ("Tav/TESA") joint venture is with TOTAL Exploration South Africa ("TESA"). It consists of the Arthur Taylor Colliery ("ATC") and the Arthur Taylor Colliery Opencast Mine ("ATCOM"). The Duiker Group owns 50% and is the managing partner.

Rietspruit is a joint venture with Ingwe Coal Corporation ("Ingwe"), which is 100% owned by BHP Billiton. The Duiker Group owns 50% and Ingwe is the managing partner. Each party markets 50% of the production.

The Douglas Tavistock joint venture ("DTJV") is also with Ingwe. The Duiker Group owns 16% and Ingwe is the managing partner. Ingwe markets all ESKOM and inland coal, while each party markets its own share of export coal.

The Duiker Group's owned, managed and joint venture mines are as follows:

Table 1 – Duiker Group owned, managed and joint venture mines

Division/Mine	Duiker Group interest	Type of mine	Principal mining method	Date mine commenced operation
Duiker managed operations				
Tweefontein Division				
Waterpan	100%	Underground and opencast	Drill and blast, dozers, excavator/truck	1930
Boschmans	100%	Underground	Continuous miner, drill and blast	1978
Witcons	100%	Underground	Drill and blast	1946
South Witbank	100%	Underground	Continuous miner	1945
iMpunzi Division				
Phoenix	100%	Underground	Drill and blast	1936
Tavistock	100%	Underground	Continuous miner, drill and blast	1936
Tav/TESA JV				
ATC	50%	Underground	Continuous miner	1977
ATCOM	50%	Opencast	Dragline, excavator/truck	1992
Mpumalanga Division				
Strathrae[1]	100%	Underground	Continuous miner	1986
Tselentis	100%	Opencast	Dozers, excavator/truck	1989
Spitzkop	100%	Underground and opencast	Continuous miner, drill and blast, excavator/truck	1966
Ingwe managed operations				
Rietspruit JV	50%	Underground and opencast	Continuous miner, dragline	mid 1970's
Douglas Tavistock JV				
Douglas	16%	Underground and opencast	Continuous miner, dragline, excavator/truck	1896 1982
Middelburg	16%	Opencast	Dragline	

[1] Operations at the Strathrae mine ceased at the end of February 2002 and the mine is currently on care and maintenance. However, the mine will continue to generate income while unwashed coal is processed and stockpiled coal is sold.

In addition to the operating mines listed above, the Duiker Group plans to begin production from a new mine in 2004. This new mine is referred to as Goedgevonden and will consist of underground and opencast operations.

2.2 Summary of geology

The three operating divisions, the joint ventures and the majority of the Duiker Group's resources are located within two of the major coalfields of the Main Karoo Basin in South Africa. The iMpunzi and Tweefontein Divisions and the Tav/TESA, Rietspruit and DTJV joint ventures are all in the Witbank Coalfield in the northern portion of the basin. The Tselentis and Spitzkop mines, which are part of the Mpumalanga Division, are in the Ermelo Coalfield.

The Witbank Coalfield

The Witbank Coalfield is bounded in the north by the limit of the Karoo Group and in the south by a paleoridge of felsite, granite and diabase. The sediments of the Karoo Group were deposited on a glaciated basement consisting of felsite and gabbro of the Bushveld Igneous Complex. Diamictites, poorly sorted grit and some shales of the Dwyka formation overlie the basement unconformably. The Dwyka formation is unevenly distributed over the area, being thicker in the paleo valleys and thinner to absent over the paleo high ground.

The coal seams are contained within the Vryheid formation, which consists of a series of upward coarsening units each capped by a coal seam. The coal seams are numbered from No. 1 Seam at the base to No. 5 Seam at the top of the sequence. The Vryheid formation reaches a maximum thickness of 120 metres.

The distribution of the No. 1 Seam is determined by paleo topography, being best developed in the paleo low areas and thinner or absent over the paleo high areas. It varies from 0.3 to 4.2 metres in thickness. The seam was deposited in unstable conditions and lenses of sediment are common but unpredictably distributed. The floor and roof are competent and the mining cut is the whole seam.

The separation between the No. 1 and No. 2 Seams varies between 1.0 and 3.5 metres and consists predominantly of sandstones and grits. The No. 2 Seam varies in thickness between approximately 4.5 and 20.0 metres where thick in-seam partings occur. Seven distinct bands or zones are recognised, although some of these may be locally absent. The No. 2 Seam zones are readily recognised on downhole geophysical traces, which are used to control the sampling and selection of mining cuts.

A No. 2A Seam may be present locally. It is situated below the No. 2 Seam and in some instances, is sufficiently thick and extensive to be economically viable.

The No. 3 Seam is thin (less than 0.5 metres) and is rarely mined.

The No. 4 Seam group consists of a lower zone (No. 4L), which consists of a basal bright band overlain by dull and dull lustrous coal with thin bright bands. The No. 4L Seam is overlain by a fissile siltstone parting, which varies in thickness from 0.1 to 1.0 metre. The overlying No. 4 Upper Seam (No. 4U) varies between 0.3 and 2.5 metres and is generally of low quality and is split by several partings. The No. 4 Seam mining cut is determined by the stability of the parting. Where the parting is sufficiently thick and competent enough to form a stable roof, the mining cut used is the No. 4L. Where the parting is unstable a mining cut including the No. 4L, parting and the lower portion of the No. 4U is used.

Locally a No. 4A Seam may occur above the No. 4 Seam but is invariably too thin to be mined.

The No. 5 Seam is preserved as erosional remnants on the higher ground. It varies in thickness between 0.7 and 2.5 metres and is a bright well-banded coal. One or more "floating stone" bands are frequently present in the upper portion of the seam.

The most significant dolerite intrusion in the Witbank Coalfield is the Ogies Dyke, which passes through the Tweefontein Division area and through the southern portion of Strathrae. It has a maximum thickness of 15.0 metres and is near vertical. Other minor dykes are occasionally encountered.

The general dip of the strata is to the south at less than three degrees. Folding and faulting are of minor importance.

A "graben" like structure, which throws all seams down by an average of 15.0 metres, is present in the southern Tweefontein Division area. The feature has an average width of 300 metres. Minor faults and slips occur within the structure but are not of sufficient magnitude to preclude mining within it.

A generalised stratigraphic column is shown below in **Figure 3**.

The Ermelo Coalfield

In the north and east the Ermelo Coalfield is defined by the limit of Karoo Group rocks, while the field's southern and western limits are arbitrarily defined. The basement on which the Karoo Group was deposited consists of rocks of the Bushveld Igneous Complex, the Transvaal System and various Archean complexes. The Dwyka sediments were deposited irregularly on the pre-Karoo basement and their extent is governed by pre-Karoo topography. These sediments consist of tillites with subordinate conglomerates, sandstones and shales. They thicken southward into the basin. Where Dwyka sediments do not occur, Ecca Group sediments are deposited irregularly over the pre-Karoo basement.

Sediments of the Ecca Group overlie the Dwyka formation conformably to disconformably and are generally composed of three formations, the Pietermaritzburg formation at the base, the Vryheid Formation and the Volksrust Formation at the top of the sequence. In the Tselentis and Spitzkop areas, the Volksrust Formation has been removed by erosion.

The coal measures are contained within the Vryheid Formation and fall within five groups designated A, B, C, D and E starting with A at the top.

The A Seam is only locally present and has been removed by erosion over most of the area. It is too thin (less than 0.5 metres) to be of economic importance.

The B Seam group is developed in all the deposits except Verkeerdepan where it has been removed by erosion. It generally consists of four plies, the upper three of which make up the mining unit.

The C Seam group has a wide distribution over the area with its overall extent being limited by the present erosion surface. The C Seam group is normally composed of two plies, which are separate and distinct, compromising an upper CU and a lower CL member. A parting of variable composition and thickness separates the two units. The CL Seam is usually thin, while the CU Seam may locally split into two separate units. Inseam partings, especially within the lower portion of the CU, are common. The C Seam group has been removed by a channel sandstone in the Tevreden area and in the central portions of the Tselentis South Pit.

The D Seam can have up to four plies in some areas but normally consists of two members separated by a shale parting. It is invariably thin and is not of economic significance.

The E Seam is only significant at Verkeerdepan. It is characterised by bright coal with only limited thin in-seam partings.

Dolerite intrusions occur throughout the area as both dykes and sills. Dykes predominate and are generally vertical to sub-vertical.

Except where intruded by dolerite, the coal measures are undeformed and have no persistent or discernable dip.

A generalised stratigraphic column is shown below in **Figure 4**.

2.3 Summary of resources and reserves

2.3.1 Resources and reserves

Resources and reserves for each of the operating mines and projects have been estimated and reported in accordance with both the JORC Code and the South African Code for Reporting of Mineral Resources and Mineral Reserves ("SAMREC").

The Duiker Group managed resource and reserve estimates have been prepared and certified by Patrick Cochran, Duiker's Consulting Geologist, in accordance with JORC and SAMREC codes. Coenraad Daniel van Niekerk, Manager-Geology, Projects and Information Technology, Ingwe Coal Corporation prepared and certified the Ingwe reserves and resources.

WIMC has reviewed and evaluated the parameters, assumptions and methodology used by Mr. Cochran to obtain the Duiker Group's estimated resources and reserves. Maps have been generated and reserves estimated by the Duiker Group utilising detailed core hole information, including seam thickness, coal quality, depth of cover, structure, partings and other pertinent geologic factors. WIMC's opinion is that the estimates have been prepared in an acceptable manner in accordance with applicable standards and codes of care.

The methodology to determine coal reserve estimates has been standardised throughout the Duiker Group's operations. The Duiker Group's portion of the total marketable reserves is estimated at 381.1 million tonnes, as summarised below:

Table 2 – Summary of reserves and resources

Group/asset name	Type of mine	Inferred Resources (Mt)	Measured and Indicated Resources (Mt)	Proved Reserves (Mt)	Probable Reserves (Mt)	Recoverable Reserves (Mt)	Processing yield (%)	Marketable Reserves (Mt)
Tweefontein Division								
Waterpan	Underground	11	139	31.7	12.8	44.5	65.1	29.0
	Opencast	–	11	8.0	0.9	8.9	70.2	6.3
	Reclaim	–	–	–	2.4	2.4	40.0	1.0
Boschmans	Underground	–	224	34.5	37.7	72.2	59.9	43.2
	Opencast	–	19	–	13.1	13.1	61.0	8.0
Witcons	Underground	–	149	14.7	–	14.7	63.4	9.3
	Opencast	–	6	–	4.5	4.5	66.3	3.0
South Witbank	Underground	–	134	–	99.2	99.2	52.1	51.7
	Auger	–	9	–	4.4	4.4	61.4	2.7
Goedgevonden	Underground	145	220	–	62.4	62.4	57.2	35.7
	Opencast	–	46	–	33.9	33.9	46.1	15.6
iMpunzi Division								
Phoenix	Underground	–	86	16.9	–	16.9	51.9	8.7
	Opencast	–	5	–	–	–	–	–
Tavistock	Underground	–	56	39.2	–	39.2	57.8	22.6
Tav/TESA JV								
ATC (50%)	Underground	–	52	21.7	–	21.7	59.1	12.8
ATCOM (50%)	Opencast	–	34	24.3	–	24.3	62.9	15.3
	Underground	–	12	–	–	–	–	–
Mpumalanga Division								
Strathrae	Underground	–	86	17.2	1.9	19.0	44.8	8.5
	Opencast	–	6	–	5.0	5.0	71.2	3.6
Tselentis	Underground	–	58	20.9	–	20.9	61.9	12.9
	Opencast	–	18	14.1	–	14.1	63.2	8.9
Spitzkop	Underground	4	189	17.3	4.9	22.1	61.8	13.7
	Opencast	–	1	0.8	–	0.8	64.0	0.5
Summary Duiker Group managed								
	Underground	159	1,406	214.0	218.8	432.8	57.3	248.2
	Auger	–	9	–	4.4	4.4	61.4	2.7
	Opencast	–	146	47.1	57.4	104.6	58.3	61.1
	Reclaim	–	–	–	2.4	2.4	40.0	1.0
Total Duiker managed		**159**	**1,561**	**261.1**	**283.0**	**544.1**	**57.5**	**312.9**
Duiker undeveloped resources								
Zonnebloem		–	104	–	–	–	–	–
Paardekop		398	444	–	–	–	–	–
Elandspruit		–	33	–	–	–	–	–
Consbrey		–	251	–	–	–	–	–
Strathrae South		–	47	–	–	–	–	–
Other		1,261	43	–	–	–	–	–
Total Duiker undeveloped		**1,658**	**921**	**–**	**–**	**–**	**–**	**–**
Duiker Total		**1,818**	**2,482**	**261.1**	**283.0**	**544.1**	**57.5**	**312.9**
Ingwe Managed JVs								
Rietspruit (50%)	Underground/ Opencast	–	87	4.2	–	4.2	57.1	2.4
DTJV – Douglas (16%)	Underground/ Opencast	–	116	43.8	–	43.8	71.9	31.5
DTJV – Middelburg (16%)	Opencast	–	85	44.9	–	44.9	76.4	34.3
Total Ingwe Managed JVs		**–**	**288**	**92.9**	**–**	**92.9**	**73.4**	**68.2**
Duiker Grand Total		**1,818**	**2,770**	**354.0**	**283.0**	**637.0**	**59.8**	**381.1**

Note: Reserves are a subset of resources and are included in the resource estimate. The resource and reserve figures tabulated for the Duiker Group managed mines are attributable resources and attributable reserves as at 31 December 2001. The resource and reserve figures tabulated for Ingwe managed joint venture mines are attributable resources and attributable reserves as at 31 December 2000. See "Presentation of information – Ore reserve and mineral reporting – basis of preparation" for an explanation of the basis of preparation of reserve amounts.

2.3.2 Undeveloped resources

The Duiker Group also controls an additional 2.6 billion tonnes (Measured, Indicated and Inferred) of coal resources. The majority of undeveloped coal resources are non-contiguous properties within Mpumalanga province. Approximately 1.1 billion tonnes are located in Northern Free State province. Although these resources have not been sufficiently evaluated on an economic basis to be classified as reserves, these coal resources have potential value in the future, either in the form of stand-alone development projects (new mines), to serve as expansion areas from existing mines or used to trade for property adjacent to existing operations.

2.4 Mines and projects

2.4.1 Mining methods and equipment

Underground mining

All the Duiker Group's affiliated mines employ fully mechanised methods of mining, which are well suited to production requirements and the physical mining conditions. Underground mines typically develop a reserve with bord and pillar mining utilising drill and blast or continuous miner methods of mining. This system results in part of the reserve being mined and the remaining reserve being left in-place as pillars for support of the roof. Some of the Duiker Group mines carefully recover part of the pillars in an operation referred to as stooping.

As practised, bord and pillar mining provides the opportunity for selective and flexible mining, reducing the adverse impact that could otherwise occur if less flexible mining systems were used, such as longwall. In addition, having a large number of operating sections provides flexibility if any one section experiences problems. State-of-the-art mining concepts are being implemented.

The majority of the conventional underground mining equipment, roof drills, loaders, electric cable shuttle cars, coal drills and coal cutters were purchased in the mid-1980's. The Duiker Group's plan is to have the original manufacturer rebuild the continuous miners on an approximate 1.5 million tonnes ROM basis, with original equipment manufacturer ("OEM") parts fully covered by warranty. Continuous miners will be replaced approximately every six to seven years, after two or three major rebuilds.

Opencast mining

The typical opencast mining method used by the Duiker Group mines incorporates large draglines and shovels to remove the majority of the overburden. These draglines are capable of excavating 50 to 60 cubic metres of material in one cycle. Overburden drilling is performed by company employees but the loading and charging of the holes is performed by experienced contractors. Modern truck and excavation fleets perform coal loading. At times, some of the opencast mines may recover pillars left by underground operations.

The equipment of the Duiker Group managed opencast mines is well maintained. Maintenance record keeping practices are very good.

Surface facilities

The major facilities, including incline shaft conveyors, main ventilation fans, material-handling equipment, man and material shaft winding equipment, preparation plants and coal handing systems are in good operating condition and are well maintained, as are the stores, office and workshop buildings.

WIMC is satisfied that:

- the major plant items are suited to their intended application at each mine;
- the plant is well maintained;
- historical costs for repair and maintenance of plant are reasonable; and
- the Duiker Group's forecast capital expenditures for major plant replacement is consistent with the age/condition of equipment and industry practice.

2.4.2 Production levels

The Duiker Group's production for all of the operations is in **Table 3**.

WIMC visited the mining operations and reviewed historical performance (1998, 1999, 2000 and 2001) and the 20-Year Mine Plan (2002 through to 2021), which included monthly details for 2002.

WIMC's opinion is that the production and productivity rates in the 20-Year Mine Plan general are realistic and achievable.

The Duiker Group operations have the potential for improving productivity by the introduction of additional modern mining equipment technology, utilising contractors, specific emphasis and focus on mine operating procedures and by the implementation of various employee training programmes.

Table 3 – coal mine saleable production and sales

Mine / project	Duiker attributable interest (%)	Total mine production (Mt)			Attributable mine production (Mt)			Total mine sales (Mt)			Attributable mine sales (Mt)			Total thermal export sales (Mt)			Total domestic sales (Mt)			Attributable thermal export sales (Mt)			Attributable domestic sales (Mt)		
		1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
DUIKER MANAGED OPERATIONS																									
Tweefontein Division																									
Waterpan	100%	0.8	1.0	1.1	0.8	1.0	1.1	0.7	1.0	1.1	0.7	1.0	1.1	0.6	0.7	1.0	0.1	0.3	0.1	0.6	0.7	1.0	0.1	0.3	0.1
Boschmans	100%	1.5	1.8	2.0	1.5	1.8	2.0	1.7	1.8	1.8	1.7	1.8	1.8	0.8	0.9	1.1	0.9	0.9	0.8	0.8	0.9	1.1	0.9	0.9	0.8
Witcons	100%	0.9	0.9	1.0	0.9	0.9	1.0	0.9	0.8	1.0	0.9	0.8	1.0	0.6	0.5	0.7	0.3	0.3	0.3	0.6	0.5	0.7	0.3	0.3	0.3
South Witbank	100%	1.0	0.0	0.4	1.0	0.0	0.4	1.0	0.1	0.3	1.0	0.1	0.3	0.3	0.1	0.3	0.7	0.0	0.0	0.3	0.1	0.3	0.7	0.0	0.0
iMpunzi Division																									
Phoenix	100%	1.0	0.8	0.8	1.0	0.8	0.8	0.8	1.2	0.8	0.8	1.2	0.8	0.3	0.9	0.6	0.5	0.3	0.1	0.3	0.9	0.6	0.5	0.3	0.1
Tavistock	100%	0.9	1.1	1.3	0.9	1.1	1.3	0.9	1.2	1.2	0.9	1.2	1.2	0.8	1.1	1.2	0.1	0.1	0.0	0.8	1.1	1.2	0.1	0.1	0.0
Tav/TESA JV																									
ATC	50%	1.5	1.8	1.8	0.8	0.9	0.9	1.7	1.7	1.9	0.9	0.8	0.9	1.7	1.7	1.9	0.0	0.0	0.0	0.9	0.8	0.9	0.0	0.0	0.0
ATCOM	50%	2.4	2.4	2.3	1.2	1.2	1.1	2.4	2.4	2.3	1.2	1.2	1.2	2.4	2.4	2.3	0.0	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0
Mpumalanga Division																									
Strathrae[2]	100%	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.1	0.1	0.1	0.5	0.5	0.5	0.1	0.1	0.1
Tselentis	100%	1.0	1.0	1.2	1.0	1.0	1.2	1.0	1.1	1.1	1.0	1.1	1.1	0.8	0.8	0.8	0.2	0.3	0.2	0.8	0.8	0.8	0.2	0.3	0.2
Spitzkop	100%	1.3	1.4	1.4	1.3	1.4	1.4	1.4	1.5	1.4	1.4	1.5	1.4	1.0	1.2	1.1	0.5	0.3	0.3	1.0	1.2	1.1	0.5	0.3	0.3
INGWE MANAGED OPERATIONS																									
Rietspruit	50%	5.4	4.9	3.8	2.7	2.4	1.9	5.1	5.4	3.3	2.6	2.7	1.6	5.1	4.1	2.4	0.1	1.3	0.9	2.5	2.1	1.2	0.0	0.6	0.5
DTJV	16%	26.9	24.4	25.3	4.3	3.9	4.0	24.1	25.6	24.5	3.9	4.1	3.9	11.4	12.7	12.8	12.8	13.0	11.7	1.8	2.0	2.0	2.0	2.1	1.9
Total		**45.3**	**42.1**	**42.9**	**18.0**	**17.1**	**17.8**	**42.6**	**44.5**	**41.3**	**17.7**	**18.2**	**17.0[1]**	**26.3**	**27.6**	**26.6**	**16.2**	**16.9**	**14.6**	**12.2**	**12.8**	**12.6**	**5.5**	**5.4**	**4.3**

(1) Includes 52,000 tonnes produced by other parties sold by the Duiker Group and through the Duiker Group's RBCT entitlement.

(2) Strathrae is to be put on care and maintenance.

2.4.3 Management

WIMC visited all the Duiker Group's mine sites and JV interests to meet divisional general managers and mine managers to review present plans and future projections.

WIMC's opinion is that:

- management is well trained, motivated, professional and experienced within the industry;
- the management structure is well organised with excellent communication between all staff and operating groups throughout the organisation;
- all senior and middle management staff have demonstrated that they are experienced, well trained and motivated to operate the Duiker Group operations in a prudent and professional manner;
- senior personnel exhibited excellent knowledge of their respective operations and appeared to be experienced and professional in the discharge of duties; and
- the joint venture operations are also well managed by experienced and professional personnel.

2.4.4 Health and safety

Safety performance is measured by incident free rates calculated for the number of fatalities, reportable injuries (off work for more than 14 days) and disabling injuries (injuries resulting in lost-time).

The health of the Duiker Group's employees is reported to the Department of Minerals and Energy ("DME") as required under the 1996 Mine Health and Safety Act. No unsatisfactory issues were reported by the Duiker Group regarding required health issue reporting.

One health issue that can impact on the operations is the prevalence of HIV/AIDS and related illnesses. Testing can only be performed on a voluntary basis. The World Health Organisation reports that approximately 20% of the South African population is HIV positive. The Duiker Group is involved in a number of programmes which involve employee education as well as community initiatives, which are aimed at limiting the impact and rate of transmission of the disease.

2.4.5 Coal processing

Each of the Duiker Group mining operations has a preparation plant. The nature of the ROM coal with its high middlings content demands the use of processes which have close control of the specific gravity of separation. Various qualities of coal can be produced for both the inland and export markets and modified to suit current market demands and forecasts.

The design of the preparation plants typically incorporates the use of multiple modules, which facilitates maintenance without entirely curtailing production. The preparation plant yields vary considerably depending upon the quality of both ROM feed and saleable production. The capacity of the preparation plants vary from 300 tonnes per hour to 2,000 tonnes per hour. The preparation plants typically operate 5.5 days per week with scheduled maintenance during the week or on weekends.

The laboratories have crushing, sizing and screening facilities in addition to the necessary equipment for conducting washability, proximate, sulphur and calorific value analysis of coals. The preparation plants operated by Ingwe contain similar process circuits to those operated by the Duiker Group.

Coarse refuse disposal sites are located in proximity to the preparation plants. Fine refuse is pumped to settling ponds or underground. Only the destoning plant at Middelburg utilises filtration equipment for fines dewatering.

WIMC's opinion is that:

- excellent quality control programmes are in use, including adequate stockpiles for ROM and clean coal, that ensure that only the correct specification coal is sent to market;
- quality control is maintained at high standards with regular sampling and analyses by the Duiker Group on-site laboratories; and
- each of the preparation plants is in sound mechanical condition.

2.4.6 Transport and port

Richards Bay Coal Terminal

The Richards Bay Coal Terminal ("RBCT") is a non-profit company that is owned by several major coal producing companies in South Africa. RBCT is one of the largest export coal terminals in the world with a sophisticated 24-hour computerised operation exporting more than 68 million tonnes per annum to international markets. With the completion of the latest expansion project, four rail-mounted ship loaders are in operation; two loading at 10,000 tonnes per hour and two at 8,500 tonnes per hour. In addition, a 1.5 kilometre quay can accommodate five ships at berth. The board of directors determines annual throughput for the terminal.

The latest expansion of the RBCT facility has increased annual nameplate capacity to 69.5 million tonnes per annum at 34 grades of coal. The number of grades of coal at RBCT ultimately dictates the throughput capacity of the facility. Future reductions in the number of grades would allow an increase in annual facility capacity. The Duiker Group reported that the actual capacity is approximately 72 million tonnes per annum at 34 grades of coal of which the Duiker Group is entitled to approximately 15 million tonnes per annum due

to its 20.91% interest. At the agreed 2002 throughput capacity of 68.0 million tonnes, the Duiker Group's available entitlement will be 13.9 million tonnes per annum after deducting net entitlement transferred to and from two of its joint venture partners.

A memorandum of understanding has been signed by a number of parties wishing to participate in the RBCT Phase V upgrade project, which is planned to increase total throughput capacity to 82 million tonnes per annum. Duiker has elected to exercise its rights in the Phase V upgrade, which will increase its entitlement by 2.1 million tonnes per annum. Final approval for the project was given in late 2001. The construction period for this phase is expected to commence, once all agreements have been signed and all conditions precedent are satisfied, in 2002. Commissioning is currently expected in 2004.

COALLink

COALLink provides the rail transport services from the mines to RBCT. COALLink is managed by an operating committee comprised of COALLink, RBCT management and RBCT shareholders. The rail operator's annual budget for April 2001 to March 2002 is 68.0 million tonnes. The rail line extends from Witbank to Richards Bay, a distance of 575 kilometres. The current 10-year rail agreement between COALLink and RBCT shareholders extends to the end of 2005 and covers a volume up to 72.0 million tonnes per annum. A separate agreement has been reached for the 10.0 million tonnes per annum of the Phase V expansion plan.

2.5 Environmental issues and management

Mining companies in South Africa are required by law to submit Environmental Management Programme Reports ("EMPRs") to the Director-Minerals Development, DME. The EMPRs identify the individual rehabilitation issues and quantify the costs involved in carrying out acceptable restoration programmes.

The Duiker Group has properly submitted the required documents. The DME is currently reviewing EMPRs from all South African mines and has acknowledged that approval of the EMPRs may be delayed by a matter of months. In the meantime, the DME has issued the Duiker Group with a total of 12 final and eight temporary letters of authorisation.

The mines are required to make financial provision for their future rehabilitation liabilities, either by holding funds in an approved trust fund, or by issuing a guarantee via a financial institution to the DME. A combination of both of these methods is also acceptable. Amounts held in the trust fund are invested with registered deposit taking institutions and any investment growth is not subject to tax. The amount of any guarantee would be the total projected expenditure net of any amounts held in a trust fund investment.

Rehabilitation Amounts	**ZAR million**
Trust fund balance as of 31 December 2001	195.5
NPV of rehabilitation expenditure (per balance sheet)	343.1
Total projected rehabilitation expenditure	494.9
Amount required for guarantee	299.4

The total liability estimates shown above in 2001 monetary terms are based on the NPV of nominal cost projections for complete rehabilitation. The rehabilitation expenditures will be incurred from 2002 to 2021 and thereafter until rehabilitation is complete.

The National Water Act requires all users to register their current water usages and submit applications to pump and/or discharge water. The Duiker Group has met with the Department of Water Affairs and all of the necessary applications have been submitted. The Duiker Group is awaiting notification of approvals.

WIMC's opinion is that the rehabilitation estimates have been prepared in accordance with prudent engineering and environmental standards and the provisions for the rehabilitation are sufficient for the Duiker Group's liabilities.

WIMC conducted a brief overview of the Duiker Group's environmental compliance, as part of which it:

- held discussions with Duiker Group's technical services manager, division managers and other appropriate personnel;
- reviewed audit reports prepared by independent consultants;
- reviewed internal audits conducted by the Duiker Group; and
- examined letters of approval pertaining to mining licences and other pertinent documents.

WIMC has reviewed copies of the Duiker Group's mining licence authorisations and EMPR letters of authorisation. The Duiker Group is in possession of all necessary authorisations. A summary of the status of the mining licences and the EMPRs is provided as follows:

Table 4 – Summary of mining licences and authorisations

Division/mine	Mining licence no.	Expiration date	EMPR status
Tweefontein Division			
Waterpan Colliery	34/95	Indefinite	Approved
Boschmans Colliery	34/95	Indefinite	Approved
Witcons Colliery	34/95	Indefinite	Approved
South Witbank Colliery	31/94	Indefinite	Awaiting approval
South Witbank Colliery (Klipoortje)	18/01	2014	Approved
Goedgevonden Colliery	5/97	2007	Awaiting approval
iMpunzi Division			
Phoenix Colliery	31/94	Indefinite	Awaiting approval
Tavistock Colliery	31/94	Indefinite	Awaiting approval
Tav/TESA JV			
ATC	31/94	Indefinite	Awaiting approval
ATCOM	31/94	Indefinite	Awaiting approval
Mpumalanga Division			
Strathrae Colliery (Main)	23/98	2006	Approved
Strathrae (Grootpan)	23/98	2006	Approved
Tselentis Colliery (Smutsoog)	9/01	Indefinite	Approved
Tselentis Colliery (Botharust/Lilliput/Klipstapel)	8/01	Indefinite	Approved
Tselentis Colliery (Witbank/Main)	22/00	2010	Approved
Tselentis Colliery (Co-disposal)	16/99 Approval Letter	–	Approved
Spitzkop Colliery	30/94	Indefinite	Approved
Consbrey Colliery	Temp 5/94	–	
Rietspruit JV	13/99	2022	Approved
DTJV			
Middelburg	9/99	2034	Awaiting approval
Douglas	11/99	2022	Awaiting approval

2.6 Statutory authorisations

WIMC has reviewed current and projected mining plans in relation to mineral and surface rights.

Under current South African legislation, mineral rights are held privately. The government has released a draft Mineral Resources and Petroleum Bill for comment. The draft Bill proposes to vest ownership of the right to mine all minerals (including minerals privately held) in the State as well as increase the reporting requirements for holders of prospecting or mining rights. The draft Bill remains subject to negotiation between the government, industry and other interested parties. The Duiker Group is unable to determine if or when the new legislation will come into effect. The worst case scenario currently envisaged by the Duiker Group is that it may lose the rights to undeveloped resources that are currently not allowed for in its business plan.

The Duiker Group has an ongoing freehold acquisition programme to secure surface rights ahead of mining, where required. For undeveloped resources, only limited surface freehold is owned. In most instances, however, title to the mineral rights confers the right to purchase the surface freehold necessary for mining purposes. WIMC's opinion is that the Duiker Group controls the necessary mineral rights and property relative to their current and projected mining operations.

2.7 Costs

2.7.1 Total free-on-rail cash costs

WIMC was provided with detailed historical mine total FOR cash costs and the 20-Year Mine Plan cost projections, in addition to historical and projected capital expenditure requirements.

Factors considered in the 20-Year Mine Plan total FOR cash costs include the following:

- higher costs associated with starting and closing mine operations;
- variations in production rates;
- variations in coal seam thickness mined;
- variations in preparation plant yields; and
- variations in method of mining and specific mining equipment utilised.

Typical risks associated with underground and opencast mining, including geologic anomalies, may occasionally affect mining projections. The long operating history of the mines and the relative uniformity of the coal seams suggest that in general, the proposed performance can be achieved.

2.7.2 Capital expenditures

WIMC reviewed detailed capital expenditure estimates obtained from the Duiker Group. These capital expenditure estimates have been planned to support each mine and to fund the development of projects and expansions.

WIMC found that:

- capital expenditures are sufficient to maintain current production capacity and to promote new production capacity where required;
- capital expenditures for approved projects and mine expansions are supported by the appropriate level of study and engineering design; and
- allowance for long-term project development has been made to a level appropriate for the stage of analysis. The Duiker Group will undertake a more detailed assessment of the project and confirm the accuracy of cost estimates as the projects nears final approval. The capital allowances made for project development are considered appropriate.

Most of the Duiker Group mines are mature and have a historical cost base on which to estimate sustainable capital expenditure for replacement of major equipment and mine extension. The Duiker Group's capital expenditure forecasts are reasonable and in line with historical expenditures and industry practices.

In WIMC's opinion, the Duiker Group's capital expenditure forecasts:

- reflect the current condition of equipment and infrastructure;
- allow for replacement of equipment and facilities as required;
- allow for the development of projects and upgrade of operations to bring new production online; and
- are reasonable and comparable with similar coal mining operations in South Africa.

2.8 Risks and synergies

While some downside risk will always remain in any mining venture, there is a reasonable chance that the current projections may be improved as a result of synergies that the Duiker Group believes will occur. These synergies include:

- the ability to market additional export coal at premium prices;
- the potential of increased export coal sales by trading surplus grades for additional entitlement;
- reducing the number of grades at RBCT;
- trading of coal reserves and resources to improve the Duiker Group's reserve base;
- utilisation of modern, highly productive equipment to improve productivity;
- contracting out some of the work currently being conducted by Duiker Group employees; and
- operating preparation plants at or near capacity.

The Duiker Group anticipates that it can reduce overall working costs by improving efficiencies at the mining operations.

WIMC's opinion is that savings could be realised and are attainable by employee training, detailed tracking of costs and implementing more efficient technology.

2.9 Sales and marketing

WIMC reviewed exploration data, coal quality analysis and preparation plant performance capabilities and concluded that the projected product quality can be achieved. This includes both export and inland sales quality.

The quality of the coal mined by the Duiker Group is typical of coal found in the Witbank and Ermelo Coalfields. The rank of the coal is that of high volatile bituminous. The in-situ coals vary considerably in quality both in vertical and horizontal planes. The portion of the seam mined has a considerable impact on the ROM coal quality and preparation plant yield.

The washed coals are dull in appearance and are firm with Hardgrove Indices of approximately 50. They are relatively high in ash content. A typical washed product will have an ash content of approximately 14% air dry basis ("adb"). The sulphur content is typically less than 1% adb. The gross calorific value of washed coals is in the range of 25.5 to 28.5 megajoules per ramme adb.

The quality of the Duiker Group coals makes them suitable for use in the power and steam generation industries, both inland and export. In addition, although the free swelling indices are two or less, the No. 1 and 5 Seams, having phosphorous levels below 0.01%, are attractive to the South African metallurgical and char-making industries.

Historically, the Duiker Group shipped 30% of its production on the inland market and 70% on the export market. The 20-Year Mine Plan projects selling an average of 16% on the inland market and 84% on the export market.

2.10 Valuation of reserves

2.10.1 Methodology and assumptions

The consolidated valuation of the Duiker Group has been performed using the discounted post-tax cash flow valuation method.

The following key factors were considered in the valuation process:

Capital expenditure

The level of capital expenditure as scheduled in development of the NPV calculations is sufficient to both maintain current production capacity and to promote new production capacity where required. Capital forecasts include expenditures for replacing major equipment on a periodic basis, as well as development capital for opening new areas for mining.

Plant and equipment

The cost of maintaining, repairing and, where necessary, replacing items or components, is included in the mine FOR cash cost estimates or in the capital expenditure schedules. Except in instances where equipment is planned to be transferred to another operation, plant and equipment have not been valued separately. As the plant and equipment is an integral component in the generation of the cash flows used to estimate the value of the reserves, the value of the plant and equipment is included in the reserve value. Any residual value is considered not to be material.

Selling price

Coal is an international commodity and is subject to both short-term and cyclical variations. The valuation model is based on a forecast of coal sales prices that was prepared by the McCloskey Group and is believed to be reasonable.

The base case forecasts are illustrated below:

Table 5 – Base case forecast coal prices

Nominal FOB coal price		2002	2003	2004
South African export thermal coal price	US$/t	29.6	31.5	33.1
ZAR/US$		11.0	11.8	12.2

Taxes

Taxes were computed in accordance with standard South African regulations.

Other key parameters

Other key valuation parameters used in the valuation include the following:

- the Rand to US Dollar ("ZAR/US$") exchange rate is assumed to average ZAR11.00 to US$1.00 in 2002 and is assumed to depreciate at the annual inflation differential between the two countries thereafter;
- cash flows are expressed in nominal terms and have been discounted according to mid-year convention; and
- the NPV was calculated using a nominal discount rate of 12.5%.

2.10.2 Valuation results

The following tables summarise the aggregated post-tax value of the reserves:

Table 6.1 – Summary valuation of reserves

Nominal discount rate %	NPV (US$ million)
+2%	1,543
+1%	1,637
12.5%	1,740
-1%	1,854
-2%	1,981

Table 6.2 – Base case valuation of attributable reserves

	Proved Reserves (US$ millions)	Probable Reserves (US$ millions)	Total Reserves (US$ millions)
Base case valuation	1,213	527	1,740

2.10.3 Sensitivity analysis

The business of mining and marketing coal contains variables that are not always predictable. Potential variables include those directly associated with the mining operation, such as cost and production levels, as well as those that are external to the mining operation, such as market prices and currency exchange rates.

While WIMC concludes that the NPV of the Duiker Group operations, as presented above, is realistic relative to the 20-Year Mine Plan, a sensitivity analysis has been prepared for the following variables:

Operating cost

This could vary as a result of changes in component costs, such as labour or supplies, or from variances in productivity. WIMC calculated a sensitivity of plus 5% in operating cost.

Production

Production level can be affected by variances in productivity or market place demands. WIMC calculated a sensitivity of minus 10% in production.

Capital cost

Variances in capital costs could result from quantity or market prices of capital items. WIMC calculated a sensitivity of plus 25% in capital costs.

Exchange rate

WIMC calculated the sensitivity impact of a minus 5% change in the ZAR/US$ exchange rate.

Coal price

WIMC calculated the sensitivity impact of a minus 10% change in coal sale prices.

A summary of the effect of sensitivity of the valuation of reserves to these variables is as follows:

Table 7 – Sensitivity analysis of resource valuation

NPV (US$ million)	Base case	Operating cost (+5%)	Production (-10%)	Capital cost (+25%)	ZAR/US$ exchange rate (-5%)	Coal sales price (-10%)
Post-Tax aggregated value	1,740	1,677	1,687	1,685	1,653	1,382

2.11 Summary of conclusions

WIMC visited the operations and held discussions with the Duiker Group management regarding the basis for the 20-Year Mine Plan parameters. In areas where WIMC expressed concern with respect to the 20-Year Mine Plan, the Duiker Group either satisfactorily explained the reasons for their projections or in certain instances, the 20-Year Mine Plan model was revised.

Since its acquisition by Glencore, Duiker has restructured senior management. The Duiker Group has re-evaluated all mining plans, productivity parameters, projections, working costs and capital expenditures to provide a basis for the 20-Year Mine Plan. In addition, a system of tracking production, productivity and functional costs is being implemented.

Senior management is continually re-evaluating current and future mining plans in an effort to reduce cost and capital expenditure and to improve productivity. Management also evaluates synergies between the divisions, reducing the number of product sizes and the utilisation of contractors, where applicable.

WIMC has established that the value of the Duiker Group's South African Proved and Probable Reserves is US$1,740 million. This assumes a discount factor of 12.5%, the sales price forecast prepared by the McCloskey Group and the Duiker Group's cost and production forecasts as reviewed by WIMC.

3. Description of operations

This section presents an overview of each of the mines and projects in the following divisions:

Tweefontein Division
iMpunzi Division
Mpumalanga Division
Rietspruit JV (50%)
Douglas Tavistock JV (16%)

3.1 Tweefontein Division

3.1.1 General

The Tweefontein Division consists of four mines and a project. Waterpan, Boschmans, Witcons and South Witbank are currently operating. A project, Goedgevonden, is scheduled to commence production in 2004. These mines are located near the town of Ogies.

3.1.2 Division services

The Tweefontein Division headquarters, located near Coalville, provides administration, accounting and human resources services. Planning and technical services for the entire division are provided from the Boschmans mine office.

The coal quality analysis services for all the division mines is performed by the iMpunzi Division laboratory.

3.1.3 Waterpan mine

Description

Waterpan mine ("Waterpan") is an underground, opencast and dump reclamation operation that is located approximately 17 kilometres south-west of Witbank in the Mpumalanga Province. Production is sold on both the export and inland markets. Export sales are transported by rail to RBCT.

A contractor operates the opencast mine in the No. 4 Seam. An old discard dump located at the Waterpan preparation plant is being reclaimed. The Waterpan underground mine currently operates in the No. 4 Seam. The mine produces coal with two drill and blast sections.

Geological characteristics

The No. 4 Seam averages approximately 3.5 metres in thickness. Mining conditions are good to excellent and these conditions are expected to continue.

As currently projected, the underground operations at Waterpan will move into the No. 2 Seam, which averages 4.4 metres thickness starting in 2004. Mining conditions in the No. 2 Seam are not expected to be as favourable as the No. 4 Seam, primarily due to the undulations in the No. 2 Seam reported in the western margin of the remaining reserve area.

Maps and plans

Figures 5-1B and **5-1C** show the previous mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 4 Seam and No. 2 Seam respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of 16 years.

Long-term prospects

A majority of the resources and reserves are projected to be mined in the 20-Year Plan, except Waterpan does not project underground mining of the No. 5 Seam. The No. 5 Seam underground resources, including Inferred Resources, amount to 35 million tonnes.

Mining and processing

A contractor operates the opencast mine in the No. 4 Seam. The contractor provides his own equipment and labour and is responsible for rehabilitation of disturbed areas. Rehabilitation is ongoing. An old discard dump located at the Waterpan preparation plant is being reclaimed. The Waterpan underground mine currently operates in the No. 4 Seam at a depth of 16 to 60 metres. The mine produces coal with two drill and blast sections. One section operates two shifts per day and the other section operates one shift per day.

Mining heights average 3.0 to 3.5 metres. In addition to the two drill and blast sections, which are scheduled to operate through to 2017, Waterpan will add three continuous miner sections. The continuous miner sections will be added in 2004, 2006 and 2010.

The Waterpan preparation plant has a 330 tonnes per hour feed capacity, which is equivalent to 150,000 ROM tonnes per month. The preparation plant and handling facilities have been progressively modified over the 70 years since Waterpan started mining coal. The cleaning facilities consist of five new modular circuits, which commenced operations in 1996.

3.1.4 Boschmans mine

Description

Boschmans mine ("Boschmans") is an underground operation located 23 kilometres south-west of the town of Witbank in Mpumalanga Province. Product tonnes have historically been sold on both the export and inland markets.

The Boschmans underground mine currently operates in the No. 4 Seam. The mine produces coal with four drill and blast sections and one continuous miner section. The ROM coal is processed at the Boschmans preparation plant. The clean coal is transported by rail to RBCT for export sales. Transportation to inland sales occurs by road and rail.

Geological characteristics

Boschmans is currently a five-section underground mine operating in the No. 4 Seam. The No. 4 Seam is 3.8 to 4.2 metres in thickness. Approximately 3.0 metres of the low yield and poor quality top coal are left in place in the roof. Mining conditions in the No. 4 Seam are excellent and are expected to continue as such in the future.

As currently projected, Boschmans will move into the No. 1 Seam in 2012 and No. 2 Seam in 2013. Mining conditions in the No. 2 Seam are not as favourable as the No. 4 Seam, primarily due to the undulations in the No. 2 Seam reported in the western margin of the remaining reserve area.

Maps and plans

Figures 5-1B, **5-1C** and **5-1D** show the previous mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 4 Seam, No. 2 Seam and No. 1 Seam, respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of over 20 years.

Long-term prospects

Boschmans has approximately 2.6 million tonnes of ROM opencast reserves remaining at the end of the 20-Year Mine Plan. There are also 25 million tonnes of No. 5 Seam underground resources that have not been projected for mining.

Mining and processing

The Boschmans underground mine currently operates in the No. 4 Seam at a depth of less than 65 metres. The mine produces coal with four double shift drill and blast sections and one double shift continuous miner section. Boschman's mine plan is to replace two of the drill and blast sections with continuous miners in 2002. A new continuous miner will be purchased, which will conduct stooping operations with the existing continuous miner section. The other continuous miner is being transferred from Strathrae and will go into primary development with the remaining two drill and blast sections. The five sections operate two shifts per day for a mine total of ten unit shifts per day.

The 20-Year Mine Plan projects Boschmans continuing to operate in the same reserve area in the No. 1, No. 2 and No. 4 Seams throughout the 20-Year Mine Plan. All continuous miner sections will conduct stooping south of the Ogies Dyke. The 20-Year Mine Plan projects mining 3.3 to 3.8 million tonnes per annum ROM through to 2021.

On the surface, ROM coal is conveyed to an open ROM stockpile. A reclaim conveyor belt subsequently feeds the ROM coal to the preparation plant. The Boschmans preparation plant has an 800 tonnes per hour feed capacity, which is equivalent to the 265,000 ROM tonnes per month. The preparation plant and handling facilities have been progressively modified over the years since Boschmans started coal mining. The coarse coal plant commenced operation in 1975.

3.1.5 Witcons mine

Description

The Witcons mine ("Witcons") is an underground operation. The mine is located approximately 28 kilometres south-west of the town of Witbank in Mpumalanga Province. Witcons consists of an underground mine and surface facilities including administrative and service buildings, portal shaft, supply incline, coal storage, preparation plant and coal handling facilities. Witcons also has a company-operated village.

Witcons' underground mine currently operates in the No. 2 and No. 4. Seams. The mine produces coal with three drill and blast sections.

Geological characteristics

Witcons is currently operating one section in the No. 2 Seam and two sections in the No. 4 Seam and is projected to continue operating in these seams through 2012. The No. 2 Seam at Witcons has generally poorer mining conditions relative to the other Duiker mines. All of the current and projected mining in the No. 2 Seam at Witcons is in the northern portion of the reserve area where these poorer conditions are expected to continue. Mining conditions in the No. 4 Seam are very good.

Starting in 2007, Witcons is projected to mine both the No. 1 and No. 2 Seams simultaneously. The interval between the No. 1 and No. 2 Seams is sufficiently thick (6.0 to 10.0 metres) and the material of sufficient competency to allow for the underground mining of seams which are in close proximity to one another.

Maps and plans

Figures 5-1B, **5-1C** and **5-1D** show the previous mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 4 Seam, No. 2 Seam and No. 1 Seam, respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of 11 years.

Long-term prospects

It is not likely that the mine life will be extended beyond 2012, however there are additional resources in the No. 2 and No. 4 Seams.

Mining and processing

Witcons' underground mine currently operates in the No. 2 and No. 4 Seams at depths of 20 to 110 metres. The mine produces coal with three drill and blast sections. Each section operates two shifts per day, five days per week. The 20-Year Mine Plan projects that underground mining will continue in the No. 1, No. 2 and No. 4 Seams in a manner similar to current operations until those reserves are exhausted in 2012. The No. 4 Seam will be mined through 2007. The No. 1 Seam will be mined from 2007 to 2011. Additional

reserves are available as a result of the planned stooping in the No. 4 Seam. One drill and blast section will be replaced by a continuous miner section in 2003, which will carry out stooping in the No. 4 Seam. A contractor opencast mine will operate in the No. 4 Seam from 2007 to supplement underground production.

On the surface, ROM coal is conveyed to a ground storage stockpile and then to the preparation plant.

Witcons' preparation plant has a 350 tonnes per hour feed capacity, which is equivalent to 165,000 ROM tonnes per month. The preparation plant and handling facilities have been progressively modified over the years since Witcons started coal mining. The cleaning facilities consist of a coarse coal dense medium plant, which commenced operations in 1975, and a pair of Portaclone dense medium cyclone plants which were installed in 1990.

3.1.6 South Witbank mine

Description

South Witbank mine ["South Witbank"] is an underground operation located 15 kilometres south-east of the town of Ogies in the Mpumalanga Province. Product tonnes have historically been sold on both the export and inland markets. Export sales are transported by rail to RBCT. South Witbank was reactivated and commenced production in June 2001. Mining is conducted in the No. 4 and No. 5 Seams at a depth of less than 55 metres.

Geological characteristics

South Witbank is currently operating in the lower bench of the No. 4 Seam and is scheduled to commence future mining in the No. 5 Seam. Average seam thickness of the No. 4 Seam is 3.4 metres and the No. 5 Seam is 1.6 metres. Underground mining conditions are expected to be good to excellent.

Maps and plans

Figures 5-1A and **5-1B** show the previous mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 5 Seam and No. 4 Seam, respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned 20-year mine life.

Long-term prospects

Reserves are projected to be exhausted at the end of the 20-Year Mine Plan.

Mining and processing

There was no production from the No. 5 Seam operation in 2001.

The South Witbank underground mine currently operates in the No. 4 Seam at a depth of less than 55 metres. The mine produces coal with three continuous miner sections, developing bord and pillar panels. The continuous miner units will stoop previously developed panels. The three sections operate two shifts per day for a mine total of six unit shifts per day. Underground mining operations in the No. 5 Seam will be accelerated to allow stooping in the No. 4 Seam. South Witbank's long-range mining plan for underground mining in both the No. 4 and No. 5 Seams will extend to 2020. Annual ROM production will be 3.5 million tonnes in the No. 4 Seam and 2.1 million tonnes in the No. 5 Seam. A contract auger mining operation is scheduled to operate from 2003 to 2010 and produce approximately 0.6 million tonnes per annum ROM.

South Witbank plans to operate three continuous miner sections in the No. 4 Seam throughout the 20-Year Mine Plan. Three to five continuous miner sections will operate in the No. 5 Seam from 2002 to 2021.

The new preparation plant has a capacity of 600 tonnes per hour, with three crews that work 5.5 days per week or 450 operating hours per month. The plant was constructed and began processing in July 2001. Processed coal will be sold on the export market as a 40 x 0 millimetre sized product.

3.1.7 Goedgevonden project

Description

Goedgevonden is a proposed mining operation projected to start opencast production in 2004. Underground production is projected to begin in 2005.

Geological characteristics

The No. 2 Seam ranges from 5.0 to 7.0 metres in thickness across the Goedgevonden property. The upper portion of the No. 2 Seam is of poor quality and low preparation plant yield. Only the lower 2.0 to 3.0 metres of the No. 2 Seam will be mined.

The No. 4 Seam is generally a single seam that is 6.0 to 7.0 metres in thickness. Along the eastern margin of the property, the No. 4 Seam is split near the middle by a sandstone parting, which is up to 3.0 metres in thickness. The upper portion of the No. 4 Seam is poor quality and has low preparation plant yield and only the lower 2.5 to 3.0 metres will be mined.

The No. 5 Seam is 1.5 to 3.0 metres in thickness.

Maps and plans

Figures 5-1A, **5-1B** and **5-1C** show the previous mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 5 Seam, No. 4 Seam and No. 2 Seam, respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included on **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of over 20 years.

Long-term prospects

Additional reserves and resources remain after the 20-Year Mine Plan. Opencast reserves of 15.4 million tonnes remain in the No. 2 and No. 4 Seams. Measured and Indicated Resources that are not included in the 20-Year Mine Plan include 72 million tonnes of No. 5 Seam, as well as additional resources of the No. 4 Seam. There is another 145 million tonnes of Inferred underground Resources in the No. 2, No. 4 and No. 5 Seams.

Mining and processing

Opencast mining will be performed by a contractor and will commence in 2004. Production from the opencast mine will be processed at the Goedgevonden preparation plant. Underground mines are planned for the No. 2 and No. 4 Seams. The No. 2 Seam Mine will commence in 2005 and the No. 4 Seam Mine will commence in 2011. Goedgevonden plans to operate continuous miner sections in both underground mines. At full production, the mines will utilise six continuous miner sections. Unit shift production is projected at 1,800 ROM tonnes. Underground mining will commence in 2005. Annual opencast ROM production will range from 0.8 million tonnes to 1.2 million tonnes from 2004 through 2021. Annual underground ROM production ranges from 0.6 million tonnes to 5.3 million tonnes.

3.2 iMpunzi Division

3.2.1 General

The iMpunzi Division consists of two 100% owned mines: Phoenix and Tavistock, plus two mines in a 50% Joint Venture with Tav/TESA. The Tav/TESA operations are ATC and ATCOM. These mines are located in the Mpumalanga province, south of Witbank and south-east of Ogies.

3.2.2 Division services

The iMpunzi Division headquarters, located at the ATC complex, provides administration and technical support for the entire division. Administrative services include accounting, payroll and stores administration. Technical support includes planning, general mine engineering (other than the routine activities which are conducted at each mine), geology and environmental oversight.

In addition to the accounting and payroll services, the division office also provides stores management services. While each mine conducts its own purchasing, the stores management department provides oversight and assists with volume discounts.

3.2.3 Phoenix mine

Description

Phoenix is approximately 11 kilometres from the iMpunzi Division management and central stores located near ATC. Phoenix consists of an underground mine and surface facilities including administration and service buildings, coal storage, preparation plant and coal handling facilities.

The Phoenix underground mine currently operates in the No. 1 Seam. The mine produces coal with two conventional drill and blast sections and a contractor mining in the low-seam, minus 2.1 metre reserves. Future plans include underground operations in the No. 2 and No. 4 Seams.

Geological characteristics

The No. 1 Seam averages 2.7 metres in thickness. The No. 4 Seam occurs as two benches. Only the higher yield and better quality lower bench will be mined. Mining conditions in the No. 4 Seam are expected to be very good to excellent.

The No. 2 Seam is generally 6.0 metres thick. The upper portion of the No. 2 Seam is low yield and poor quality, and only the lower 3.5 to 4.0 metres will be mined. All of the proposed mining in the No. 2 Seam is in areas where the No. 1 Seam has already been mined out below and where the interval between the seams is only 2.0 to 3.0 metres. The iMpunzi Division studied the feasibility of this mining by examining the rock mechanic characteristics of the seams and the sandstone interburden. Although both seams and the sandstone are competent, the thin interval and the previous mining of the lower seam may result in difficult mining of the No. 2 Seam.

Maps and plans

Figures 5-2A, **5-2B** and **5-2C** show the previous and planned mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 4 Seam, No. 2 Seam and No. 1 Seam, respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of 10 years.

Long-term prospects

The projected mining in the 20-Year Mine Plan does not include opencast resources of 5 million tonnes in the No. 4 Seam. Underground resources in the No. 2 Seam will remain beyond the projected mine closure in 2011.

Mining and processing

The Phoenix underground mine currently operates in the No. 1 Seam at a depth of approximately 61 metres. The mine produces coal with two conventional drill and blast sections and a contractor mining in the low-seam, minus 2.1 metre reserves. Both company-operated sections and the contractor operate two shifts per day. Each section operates five days per week. The 20-Year Mine Plan projects Phoenix operating the three sections through 2009, two sections in 2010 and one section in 2011. Early in 2002, the contractor section will be replaced by a drill and blast section sourced from ATC. Operations in the No. 1 Seam will continue until 2003. No. 2 and No. 4 Seams will be mined from 2003 to 2010. The remaining No. 1 Seam reserves will be mined from 2009 until closure in 2011.

On the surface, ROM coal is conveyed by a 5.2 kilometre overland conveyor belt and directed to a ground storage stockpile. The Phoenix preparation plant has a 300 tonnes per hour feed capacity, which is equivalent to 135,000 ROM tonnes per month. The preparation plant and handling facilities have been progressively modified over the years since Phoenix started coal mining. The cleaning facilities consist of a coarse coal dense medium preparation plant, which commenced operations in 1975 and a cyclone plant that was re-commissioned in 1999 to process the raw duff.

3.2.4 Tavistock mine

Description

Tavistock mine ("Tavistock") is an underground operation located 32 kilometres south-east of the town of Witbank in Mpumalanga province. Production has been sold on both the export and inland market. Tavistock sales to the inland market ended after the first quarter of 2001. Export sales are transported by rail to RBCT.

Tavistock is an underground mine currently developing the No. 4 Seam. The mine produces coal with two drill and blast double-shift sections and one continuous miner double-shift section. A fourth drill and blast section serves as a training unit for Duiker.

Geological characteristics

All of the remaining reserves for Tavistock are in the No. 4 Seam. The No. 4 Seam is multi-benched across the remaining reserve area. The mine is operating in the higher yield and better quality lower bench, which is generally 2.5 to 3.0 metres in thickness.

Maps and plans

Figures 5-2A shows the previous and planned mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 4 Seam.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of 15 years.

Long-term prospects

There are no reserves or resources projected beyond the end of the mine life.

Mining and processing

The 20-Year Mine Plan projects Tavistock operating three sections during 2002 then four sections throughout the remainder of the plan. All mining will continue in the No. 4 Seam throughout the 20-Year Mine Plan.

The Tavistock underground mine is currently developing the No. 4 Seam at a depth of less than 52 metres. The mine produces coal with two drill and blast double-shift sections and one continuous miner double-shift section. A fourth unit is a drill and blast section that serves as a single shift, training unit for Duiker. Coal production is a secondary objective of the training section. A further drill and blast section is scheduled to be added in 2003, utilising equipment transferred from Boschmans and Strathrae. From 2003 until 2015, Tavistock projects mining with three drill and blast sections and one continuous miner section. In the last year of mining, only the continuous miner section will be used. The mine operates five days per week.

On the surface, ROM coal is conveyed to a 3,000-tonne live capacity storage stockpile. The Tavistock preparation plant was upgraded in 2001 to a 450 tonnes per hour feed capacity, which is equivalent to 200,000 ROM tonnes per month. The preparation plant and handling facilities have been progressively modified since Tavistock Colliery started coal mining in 1936. The primary cleaning facilities consist of a large coal dense medium preparation plant, which commenced operations in 1997, as well as a cyclone plant. The former No. 5 Seam cyclone plant, which was re-commissioned in 1999, recovers a middlings product from the heavy media (HM) plant discard.

3.2.5 Arthur Taylor Colliery

Description

ATC is an underground operation located 27 kilometres south of the town of Witbank in Mpumalanga Province. All saleable tonnes are railed to RBCT for export. ATC operates as a 50/50 joint venture with TESA. The Duiker Group manages the mine and TESA markets the export coal sales.

ATC consists of an underground mine and surface facilities, including administration and service buildings, coal storage, preparation plant and coal handling facilities. The iMpunzi Division management and central stores are located in the same general area. The underground mine is operating in the No. 2 and No. 4 Seams. The mine currently produces coal with four continuous miner sections on double shift and one drill and blast section on single shift. By the end of the first quarter 2002, the drill and blast section will be stopped.

Geological characteristics

The No. 2 Seam is generally 5.5 metres in thickness. The upper portion of the No. 2 Seam is low yield and poor quality and only the lower 3.5 to 4.0 metres are mined. The mine has excellent mining conditions, which are expected to continue. ATC also operates in the lower bench of the No. 4 Seam with seam heights of 2.5 to 3.0 metres. The No. 4 Seam is expected to have excellent conditions for the life of the operations.

Maps and plans

Figures 5-2A and **5-2B** show the previous and planned mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 4 Seam and No. 2 Seam, respectively.

Resource and reserve statement

A summary of resources and reserves, representing the Duiker Group's 50% share, as at 31 December 2001, is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned life of 14 years.

Long-term prospects

The reserves will be depleted by the end of 2015. Additional resources of 12 million tonnes (the Duiker Group's share) of the No. 1, No. 2 and No. 4 Seams will be available at the end of the mine life.

Mining and processing

Mining operations began at ATC in 1977. The underground mine is operating in the No. 2 and No. 4 Seams at a depth of approximately 61 metres, respectively. The mine currently produces coal with four continuous miner sections on double shift and one drill and blast section on single shift. By the end of the first quarter of 2002, the drill and blast section will be stopped and all operations concentrated in the No. 4 Seam. Four continuous miner sections will mine from 2002 to 2014. The reserve will be depleted using three continuous miner sections in 2015.

Reserves in the current No. 4 and No. 2 Seams will be depleted in 2010. ATC will begin mining the No. 4 Seam reserves at the Phoenix North underground area in 2009. The mining height of 2.7 metres in that reserve is slightly higher than the average height of 2.6 metres currently mined in the No. 4 Seam at ATC. The mine operates two shifts per day, five days per week.

On the surface, ROM coal is conveyed to open ground storage stockpiles and subsequently conveyed to the ATC preparation plant. The ATC 1 preparation plant has a 530 tonnes per hour feed capacity. The preparation plant and handling facilities have been progressively modified over the years since ATC started coal mining. The cleaning process includes a coarse coal dense medium preparation plant, which commenced operations in 1979. The small coal cleaning circuit was added in 1995.

3.2.6 Arthur Taylor Colliery Opencast Mine

Description

ATCOM is an opencast mine located approximately 110 kilometres east of Johannesburg and 27 kilometres south of Witbank, in the Mpumalunga province. ATCOM is a 50/50 joint venture between the Duiker Group and TESA. There are five coal seams present at the current East Opencast operation, but only three of the seams (No. 1, No. 2 and No. 4) are being mined.

ATCOM typically mines three seams, the No. 1, No. 2 and No. 4 Seams, with approximately 90% of the in-place burden being removed with a dragline and cast blasting. An excavator-truck operation and a contractor remove the remaining overburden. A contractor removes the topsoil once a year and the subsoil is removed by the excavator-truck spread on a continuous basis.

Geological characteristics

ATCOM is located along the eastern edge of the iMpunzi Division, in an area referred to as the East Pit. At the East Pit operation, the No. 1 Seam averages 3.1 metres in thickness. The No. 2 Seam is generally 7.0 metres thick, but only the lower 3.5 to 4.0 metres are mined since the upper portion of the seam is low yield and poor quality. The No. 4 Seam occurs as two distinct benches in the East Pit area. Occurring from 2.5 to 3.0 metres above the lower bench, the upper bench is thin, averaging 1.0 metre in thickness, and of poor quality. Only the lower bench of the No. 4 Seam, which is 2.5 to 3.5 metres in thickness, is mined. The average stripping ratio for the East Pit opencast mine is 5.2:1.

The North Pit is located in the extreme northern portion of the iMpunzi Division and focuses on the No. 2 and No. 4 Seams. The No. 2 seam is approximately 3.7 metres thick and the No. 4 seam varies from 2.1 metres to 2.7 metres thick. The No. 1 Seam is absent in this area. Most of the No. 2 Seam has been underground mined. Thus, the opencast mining in the No. 2 Seam primarily will extract only the remaining pillars in the higher yield and better quality lower portion of the No. 2 Seam. The average stripping ratio is estimated to be 5.8:1 for the North Pit.

Maps and plans

Figures 5-2A, **5-2B** and **5-2C** show the previous and planned mine workings, major geological features, exploration borehole locations, property boundaries and reserves in the No. 4 Seam, No. 2 Seam and No. 1 Seam, respectively.

Resource and reserve statement

A summary of resources and reserves, representing the Duiker Group's 50% share, as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of 14 years.

Long-term prospects

In addition to the reserves projected to be mined, there are 12 million tonnes (the Duiker Group's share) of resources in the No. 2 and No. 4 Seams, which are currently uneconomical to mine.

Mining and processing

Mining operations are currently focused on the East opencast. In 2003, ATCOM completes the East opencast and moves the dragline to the North Pit where mining will continue at the average rate of 3.2 to 3.5 million tonnes per annum ROM until the year 2015. Mining finishes in 2015. Mining in the North Pit includes the removal of pillars left from previous underground workings. The dragline is a four-shift, seven-day per week operation. All other operations are three shifts per day, six-days per week.

The ATCOM preparation plant has a 1,100 tonnes per hour feed capacity, which is equivalent to 500,000 ROM tonnes per month. The preparation plant and coal handling facilities have not been significantly modified since ATCOM started mining, except for the installation of a flotation circuit.

3.3 Mpumalanga Division

3.3.1 General

The Mpumalanga Division consists of three operating mines: Strathrae, Tselentis and Spitzkop. These mines are located in the areas of Carolina, Breyten and Ermelo, respectively.

A potential fourth mine, Consbrey, is a resource property located near Breyten. Consbrey is not included in the 20-Year Mine Plan and the permitting process for development of this property has not been started.

3.3.2 Division services

The Mpumalanga Division headquarters, located in Breyten, provides administration and technical support for the entire division. Administrative services include accounting, payroll and stores administration. Technical support includes planning, general mine engineering (other than the routine activities which are conducted at each mine), geology and environmental management. While each mine conducts its own purchasing, the stores management department oversees and assists with volume discounts.

3.3.3 Strathrae mine

Description

Strathrae mine ("Strathrae") is an underground mine located 23 kilometres north-west of the town of Carolina in the Mpumalanga province. The Witrand siding is located 13 kilometres south-west of Carolina. All of the export coal is railed to RBCT. The Strathrae mine consists of an underground mine and surface facilities, including administration and service buildings, coal storage, preparation plant and coal handling facilities.

The Strathrae underground mine operated in the No. 2 Seam and produced coal with three continuous miner sections for most of 2001. Towards the end of the year, operations were reduced to one section. The low seam continuous miner section has been transferred to Spitzkop and one continuous miner section will be transferred to Boschmans. The ROM coal is processed at the Strathrae preparation plant and the clean coal is trucked either to Witrand rail siding for export shipments or direct to the inland customers. Sales of Strathrae's production are predominantly in the export market, with up to 22% sold inland.

Geological characteristics

Strathrae is located in the north-eastern portion of the Witbank Coalfield and currently underground mining in the No. 2 Seam. The No. 2 Seam is generally 2.0 to 3.5 metres in thickness. The No. 2 Seam outcrops along the eastern side of the property, thins to the north, and is split by a dolerite sill to the south. The dip is 1 degree or less, to the west-south-west.

Maps and plans

Figure 5-3-3 shows the previous and planned mine workings, major geological features, exploration borehole locations, property boundaries and LOM reserves in the No. 2 Seam.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of three months.

Long-term prospects

Mining operations were stopped at Strathrae at the end of February 2002 and the mine was placed on care and maintenance. The mine will continue to generate income while unwashed coal is processed and stockpiled coal is sold. The mine will be sold if a buyer is found. Approximately 92 million tonnes of Measured and Indicated Resources remain for potential underground and opencast mining.

3.3.4 Tselentis mine

Description

Tselentis mine ("Tselentis") a shovel-truck opencast mine located approximately 5 kilometres north and east of the community of Breyten in Mpumalanga Province. The coal is shipped to both inland and export markets. Approximately 80% of the coal is railed to RBCT for export. Tselentis consists of an office complex, a limited maintenance complex and a coal processing facility that can meet current production requirements.

Tselentis is utilising large dozers for overburden removal, supplemented with excavators and end-dump trucks. Tselentis mines the B and C Seams. Coal is trucked to the coal preparation plant where it is processed. Processed coal is hauled to a rail siding for delivery to RBCT for export or by truck and rail to inland customers.

Geological characteristics

Tselentis is currently mining in the B Seam. The B Seam averages 2.8 metres in thickness. Future mine plans include mining the C Seam. The C Seam averages 3.0 metres in thickness and has a small parting of 0.1 metre. The lower bench is good quality and the upper bench is poor quality. Typically, only the lower bench of the C Seam is mined.

The B and C Seams dip to the west at approximately 1 degree across the Tselentis property. Numerous dolerite sills and dykes are present. One sill in the Smutsoog West Pit area devolatised the coal to midvol rank.

Maps and plans

Figures 5-3-4A and **5-3-4B** show the previous and planned mine workings, major geologic features, exploration borehole locations, property boundary and LOM reserves in the B Seam and C Seam, respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of 20 years.

Long-term prospects

The reserves are projected to be depleted by the end of the 20-Year Mine Plan. Additional resources of 25 million tonnes remain in the B and C Seams.

Mining and processing

The current mining rate is approximately 1.8 million tonnes per annum ROM. Tselentis will continue opencast operations until 2018. Opencast reserves will be depleted at the current location in 2010 and opencast operations will move to the Verkeerdepan location. The Verkeerdepan location is approximately 6 kilometres north of the north opencast area.

A new underground operation is scheduled to start in 2003 in the B Seam in the South area with one continuous miner section. One additional continuous miner section will be added in 2005 to increase underground ROM production to 1.2 million tonnes per annum. One section will relocate to a new underground mine in the north area in the B Seam in 2012. After the section in the south area finishes mining, it will be moved to mine the C Seam in the north area in 2013.

Once underground reserves of 8.6 million tonnes are depleted at the existing Tselentis property, a new underground operation is planned at Verkeerdepan. This underground operation in the E Seam starts in 2016, produces up to 1.2 million tonnes per annum ROM with two continuous miner sections and will finish mining in 2021. The opencast operation at Verkeerdepan will finish in 2018.

The Tselentis preparation plant has a 400 tonnes per hour feed capacity, which is equivalent to 180,000 ROM tonnes per month. The primary cleaning plant consists of four Portaclone designed modules each capable of cleaning at a rate of 100 tonnes per hour. The primary sink material is rewashed through a secondary Portaclone plant. There are two ROM coal feed conveyors to the primary plant. The preparation plant and handling facilities have not been significantly modified since the Tselentis plant was commissioned in 1995.

3.3.5 Spitzkop mine

Description

The Spitzkop mine ("Spitzkop") headquarters and preparation plant are centrally located 23 kilometres north of the town of Ermelo and 10 kilometres south of Breyten. The Voorslag rail siding is situated adjacent to the Spitzkop coal preparation plant. Export coal is transported from this siding to RBCT.

Spitzkop consists of four active underground mines, a contractor-operated opencast pit, coal preparation plant facilities, a rail siding, and office. There are several post-mining areas that are either in the process of being rehabilitated or that will require rehabilitation.

Geological characteristics

Spitzkop is mining the B and C Seams at the underground and opencast operations. The C Seam consists of lower and upper benches. The lower bench of the C Seam averages 1.8 metres in thickness, is better quality and the only bench that is mined. The B Seam averages 1.7 metres in thickness. The roof of the B Seam is a hard sandstone. The C Seam is generally absent or erratic across the eastern half of the Spitzkop property.

Spitzkop is geologically complex and the seams are generally flat lying, with a dip of 1 degree or less to the south-west. A major graben, with a throw of 12 to 15 metres, runs west to east across the middle of the Spitzkop Mine. Numerous dolerite dykes are present, especially near and north of the graben.

Maps and plans

Figures 5-3-5A and **5-3-5B** show the previous and planned mine workings, major geological features, exploration borehole locations, property boundaries and LOM reserves in the B Seam and C Seam, respectively.

Resource and reserve statement

A summary of resources and reserves as at 31 December 2001 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of nine years.

Long-term prospects

The reserves are depleted by the end of 2010 in the 20-Year Mine Plan. An additional 153 million tonnes of Measured and Indicated Resources and 4 million tonnes of Inferred Resources will remain after the end of the mine life.

Mining and processing

The current underground operations are located in four separate areas. Each is accessed through a separate box cut drift opening. Underground mining at Spitzkop consists of the drill and blast and continuous mining methods. All underground sections at Spitzkop operate two shifts per day, five days per week.

A contractor (Ratro Mining) is operating a small opencast pit and currently producing coal for Spitzkop at the rate of 50,000 ROM tonnes per month (600,000 ROM tonnes per year). Ratro Mining is using articulated trucks and a backhoe for excavating and loading coal and is paid on a fixed cost basis. The 20-Year Mine Plan projects Spitzkop operating two underground mines in the C Seam, two underground mines in the B Seam and an opencast mine in the C Seam. Three new shafts or mine accesses will have to be developed for underground mining during the 20-Year Mine period. Several new opencast pits will also be required. The plans indicate that mining will continue in the same manner as current operations. Projected production is based on four drill and blast sections and four continuous miner sections, with the opencast being closed after the first quarter 2002.

The Spitzkop preparation plant has a 520 tonnes per hour feed capacity, which is equivalent to 235,000 ROM tonnes per month. The preparation plant and handling facilities have been significantly modified over the years since Spitzkop Colliery started mining in 1966.

3.4 Rietspruit Joint Venture

Description

Rietspruit JV ("Rietspruit") is an opencast and underground mine operation located approximately 110 kilometres east of Johannesburg and 35 kilometres south of the community of Witbank in Mpumalunga province. The coal mined is primarily sold on the export market and railed to RBCT. The Duiker Group is a 50/50 joint venture partner with Ingwe. Ingwe is the operating partner. The Duiker Group and Ingwe each market 50% of sales. Rietspruit is scheduled to complete mining in May 2002, having been in operation as an opencast mine since the mid-1970's, with the underground mine commencing in 1991.

Rietspruit consists of an office and maintenance complex, coal processing facility with ROM coal storage area, a loadout facility with a clean coal storage area and a housing facility with recreation facilities. The No. 1, No. 2 and No. 4 Seams are mined by underground methods and the No. 2, No. 4 and No. 5 Seams are mined by opencast methods .

Geological characteristics

The No. 1 seam is present only in the east-central portion of the Rietspruit property where it averages 3.0 metres in thickness and is mined underground. The No. 1 Seam thins rapidly to the north, west and east and is absent over most of the remaining property. The No. 2 seam averages 6.2 metres in thickness. The entire thickness of the No. 2 Seam is taken in the opencast operations and only the bottom 3.0 to 4.0 metres are mined underground.

The No. 4 Seam is multi-benched with the lower bench averaging 2.5 metres in thickness and the upper bench ranging from 1.0 to 1.5 metres in thickness. In the opencast operations the entire No. 4 Seam is mined. In the underground operations, only the lower bench is mined. The No. 5 Seam averages 1.0 metre in thickness where present. The maximum depth to the No. 2 Seam in the opencast operation is approximately 90 metres. The mine is in deeper cover as it approaches the end of its life and the stripping ratio for the remaining reserves is approximately 6:0:1.

Resource and reserve statement

A summary of resources and reserves, representing Duiker's 50% share, as at 31 December 2000 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life.

Long-term prospects

No reserves remain after 2002.

Mining and processing

Mining is conducted in the No. 1, 2 and 4 (Lower) Seams. The bord and pillar method of mining is used and access is through highwall adits. Underground production crews operate two shifts per day, five days per week.

The Rietspruit preparation plant has a 2,000 tonnes per hour feed capacity, which is equivalent to 900,000 ROM tonnes per month. The preparation plant and handling facilities have been progressively modified over the years since Rietspruit started coal mining. The most recent addition has been the installation of a froth flotation plant in 1998. The cleaning facilities consist of six modular circuits. Five modules have a capacity of 300 tonnes per hour each and the sixth has a capacity of 500 tonnes per hour. There is extensive ROM storage and blending capacity enabling batch washing of specific seams to be undertaken.

In WIMC's opinion, there are sufficient reserves to support the planned mine life until May 2002.

3.5 Douglas/Tavistock Joint Venture

General

DTJV is a joint venture where Ingwe controls 84% of the company and Tavistock Collieries Ltd. controls 16% of the company. Ingwe manages and operates the mines and markets all ESKOM and inland coal, while each party markets its share of export coal sales. The mining operations consists of Douglas mine with opencast mines and a large underground mine and Middelburg mine with a large opencast mine.

Description

The Douglas underground mine operates in the No. 1, No. 2 and No. 4 Seams with nine continuous miner sections. The opencast mines operate in the No. 1, No. 2, No. 3, No. 4 and No. 5 Seams.

Middelburg is an opencast operation with five BE-1570W draglines. The mine, situated in the northern area of the Witbank Coal Basin, contains five seams of coal. The mine is currently operating in the Hartbeesfontein, Driefontein, Boschmanskrans and Klipfontein reserve blocks.

Geological characteristics

The No. 1 Seam at Douglas is generally 1.5 to 3.0 metres in thickness.

The No. 2 Seam is 2.0 to 5.0 metres above the No. 1 Seam. Multiple seam underground operations are considered in areas where the No. 1 and No. 2 Seams are at least 3.0 metres apart. When the interval is less than 3.0 metres, only the No. 2 Seam is mined. The No. 2 Seam is generally 5.0 to 7.0 metres in thickness. The better quality, lower 2.5 to 3.5 metres of the No. 2 Seam, are mined in the underground mines.

The No. 3 Seam is 0.3 to 0.5 metres in thickness and is mined only in the Boschmanskrans opencast operation. The No. 4 Seam is multi-benched, with the lower bench 2.0 to 3.0 metres in thickness. The upper bench of the No. 4 Seam is either thinner, or lower quality.

The upper bench of the No. 4 Seam is mined only in the Boschmanskrans opencast operation. The No. 5 Seam is present under the higher ridges across Douglas and is generally 1.5 to 2.0 metres in thickness.

The structural dip at Douglas is to the south-south-west at 1 degree or less. Two major dykes cross in the area of the North Shaft mines, one extending north-south, the other east-west. Other minor dykes, sill and faults occur all across the property.

Middelburg operates in the No. 1, No. 2, and No. 4 Seams. The No. 1 Seam averages 1.8 metres in thickness. The No. 2 Seam lower bench averages 1.6 metres in thickness, and the upper bench averages 3.7 metres.

The No. 3 Seam is 0.3 metres in thickness and is generally recovered during mining operations, but is not included in the reserve base. The No. 4 Seam is multi-benched. Where possible, Middelburg recovers the No. 5 Seam, which is 1.5 to 2.0 metres in thickness, but it is not included in the reserve base.

The dip is to the south-south-west at 1 degree or less. The average depth to the No. 1 Seam is 45 metres.

Resource and reserve statement

A summary of resources and reserves representing the Duiker Group's 16% share as at 31 December 2000 is included in **Table 2**. In WIMC's opinion, there are sufficient reserves to support the planned mine life of over 20 years.

Long-term prospects

Additional resources remain at the end of the 20-Year Mine Plan. Further evaluation is required to determine the distribution of resources by seam.

Mining and processing

Douglas' underground mine plan changed in March and April of 2000, reducing the operations from 16 continuous miner sections operating three shifts per day, to nine continuous miner sections, operating two shifts per day, five days per week, selectively mining the No. 1, No. 2 and No. 4 Seams.

On the surface, ROM coal is conveyed to open ground storage stockpiles and subsequently conveyed to the Douglas Power Station Smalls ("PSS") preparation plant.

The opencast operations consist of a number of small pits operated by contractors, a dragline working Pit 4 and Pit 4B and an excavator-truck operation in the recently opened Boschmanskrans East. The opencast operations mine the No. 4 Seam and the No. 2 Seam and the excavator-truck operation removes pillars from old works. Coal is hauled to the preparation plant by truck.

Plans for the opencast mines include extending the existing dragline pits and subsequently moving the dragline to an area designated as Boschmanskrans West where, in addition to mining the No. 4 Seam, the No. 2 Seam pillars will be extracted. The Boschmanskrans East will continue to be operated with excavator-truck spreads and pillars will be extracted.

After processing the ROM coal through the Douglas preparation plant, the clean coal is placed into silos prior to loading lorries or rail wagons. Export coal is loaded through a rapid rail facility for transport to RBCT.

Middelburg is an opencast operation scheduled for mining through to 2034. With five BE-1570W draglines in operation, Middelburg is considered the largest dragline mine in the world. The mine, situated in the northern area of the Witbank Coal Basin, contains five seams of coal. The mine is currently mining the No. 4 (Lower), No. 2, No. 2A and No. 1 Seams. Middelburg is currently operating in the Hartbeesfontein, Driefontein, Boschmanskrans and Klipfontein reserve blocks.

The Douglas PSS preparation plant has a 2,000 tonnes per hour feed capacity. The cleaning facilities comprise three modular circuits for coarse coal and five modules for the small coal. The original plant was built in 1983 and has had major modifications in 1989, 1995 and 2000.

There are two preparation plants in Middelburg. They are identified as the North and South plants. The North preparation plant produces an export quality smalls and a middlings grade for ESKOM. The South preparation plant (referred to as a "de-stoning" plant) produces a blend of ROM and washed coal for the Duvha power station of ESKOM.

The North preparation plant currently has a 1,950 tonnes per hour feed capacity, which is equivalent to approximately 1.2 million tonnes per month ROM. The cleaning facilities consist of three modular circuits for coarse and small coal. The original preparation plant was built in 1983. The middlings preparation plant was added in 1999.

The South preparation plant currently has a 1,100 tonnes per hour feed capacity, which is equivalent to approximately 660,000 ROM tonnes per month. Approximately 40% of the ROM coal delivered to the South preparation plant is washed. ROM coal with an ash content below 30% is sent directly to the power plant without being washed. The cleaning facilities comprise two modular circuits for coarse coal only. The original preparation plant was commissioned in 1995.

The coal produced for export has a yield of approximately 55%. The yield on coal sold to ESKOM is approximately 96%.

4. Conclusion

WIMC has conducted a detailed review of the operations and all associated plans. WIMC's opinion is that:

- the Duiker Group's 20-Year Mine Plan is reasonable;
- although projected results are subject to variances in accuracy and to risks typically associated with mining operations, the 20-Year Mine Plan is based on sound reserves, sound technology, appropriate staff and labour skills, demonstrated production levels, and adequate infrastructure;
- the reserves are suitable and sufficient for the 20-Year Mine Plan;
- the reserve estimates are based on sufficient data and appropriate estimation methodologies;
- the production and productivity rates are realistic and achievable;
- the Duiker Group's incident free rates are generally favourable in comparison to the average for the South African coal industry;
- the Duiker Group is continuing efforts to improve their safety performance;
- the Duiker Group is in compliance with the health reporting requirements;
- the HIV/AIDS-related illnesses will continue to affect operations and require continued educational training efforts;
- the Duiker Group is managing environmental issues well;
- significant efforts are being made to make rehabilitation current at the managed opencast operations;
- the rehabilitation liability estimates include provisions for planned future disturbances;
- the Duiker Group is in compliance with regard to mining licences and environmental permits;
- the total FOR cash costs projections are achievable; and
- capital expenditure projections are adequate.

WIMC has established that the value of the Duiker Group's South African saleable coal reserves is US$1,740 million. This assumes a nominal discount factor of 12.5%, the sales price forecast prepared by the McCloskey Group and the Duiker Group's cost and production forecasts as reviewed by WIMC.

For and on behalf of,

Weir International Mining Consultants

Dennis N. Kostic
President and CEO

John W. Sabo
Senior Vice President

Thomas E. Blandford
Vice President

Annex A – Statement of capability and experience

Dennis N. Kostic – President and CEO of Weir International Mining Consultants – Bachelor of Science Mining Engineering – Professional Engineer, Illinois, Kentucky, Pennsylvania and West Virginia – Certified Mine Foreman, West Virginia – Member Society of Mining Engineers, Member Old Timers Club

Mr. Kostic is a mining engineer with more than 30 years of engineering and operating experience in the mining industry. His experience includes extensive mine layout and design expertise, multiple seam mining, surface and underground mine operational assessments, due diligence investigations and mine property evaluations throughout the US, Australia, Brazil, England, India, Poland, South Africa, Spain, United Kingdom and Venezuela. He has held senior level positions with several major US coal companies. Mr. Kostic is the President and CEO of Weir International Mining Consultants.

John W. Sabo – Senior Vice President of Weir International Mining Consultants – Bachelors Mining Engineer – Indiana Fire Boss – West Virginia Fire Boss and Mine Foreman – MSHA Certification: Impoundment Inspection; Approved Instructor – Member, Society for Mining, Metallurgy, and Exploration, Inc. – Appalachian Section – Member West Virginia Coal Association – Member Kentucky Coal Association

Mr. Sabo has 35 years of operating, engineering, and consulting experience in the mining industry. He has specific expertise in evaluation of both surface and underground mine reserves, mineability, engineering and operations. His experience includes operational analysis, due diligence evaluations, mine planning, feasibility studies and the valuation of mining properties throughout the US and in Canada, Mexico, Czech Republic and South Africa.

Mr. Sabo has extensive knowledge and expertise of surface mining operations utilizing draglines and truck/shovel equipment and underground mining operations utilizing both continuous miner and longwall mining methods.

He has held senior level positions with two other US consulting companies since 1977. Mr. Sabo is Senior Vice President of Weir International Mining Consultants.

Thomas E. Blandford, III – Vice President of Weir International Mining Consultants – Bachelor of Science Mining Engineering – Professional Engineer in Kentucky, Pennsylvania, and West Virginia – Certified Mine Foreman – West Virginia – Member, National Society of Professional Engineers – Member, National Council of Engineering Examiners – Member, Society of Mining Engineers

Mr. Blandford is a mining engineer with more than 21 years of experience in engineering and operations management. His experience includes engineering management at both surface and underground coal mining operations throughout the US, as well as mine planning and design, feasibility studies, budgeting, contract mining throughout the US and South Africa.

Thomas J. Sawarynski, Sr. – Senior Civil Mining Engineer of Weir International Mining Consultants – Bachelor of Science Civil Engineering -Professional Engineer, licensed in Colorado, Pennsylvania and Virginia – ABET Evaluator (Accreditation Board for Engineering and Technology) of SME-AIME

Mr. Sawarynski is a mining engineer with over 26 years of underground and surface mining experience and is an accomplished professional with an exceptional record of performance in engineering management, business development, multi-facility management. He has held positions of President, Vice President Engineering, Engineering and Mine Manager with major coal mining companies.

Hershiel H. Hayden – Senior Engineering Manager of Weir International Mining Consultants – Bachelors in Math and Physics – Certified Mine Foreman: Colorado, Illinois, Kentucky, Pennsylvania, Utah, Virginia and Wyoming – Certified MSHA Instructor – Certified MSHA Dust and Noise – Member, Society for Mining, Metallurgy, and Exploration, Inc. – Appalachian Section

Mr. Hayden has more than 33 years of operating and engineering experience in the mining industry. He has held senior level positions with several US coal companies operating both surface and underground mines. He has specific experience in equipment selection and utilization, labour, productivity and costs relative to underground mining; operational analyses; longwall feasibility studies; equipment selection and installation; and acquisition analyses. He has specific experience not only in the US, but Australia, South Africa and Canada.

Douglas M. Dwosh – Senior Mining Engineer – Bachelor of Science Mining Engineer – Registered Professional Engineer

Mr. Dwosh is a mining engineer with more than 30 years of experience in all major disciplines of mine engineering. He has undertaken engineering projects in all North American coal fields and in Brazil, China, India, Pakistan and South Africa ranging from surface mine design, underground mine operation, financial analysis, strategic planning and coal market studies.

Annex B – Scope of work/limitations and exclusions/materiality

Scope of work

WIMC carried out the following scope of work for this CPR:

- Visited each Duiker Group operation to review geology, reserve and operational information. WIMC representatives visited each of the mines, preparation plants, mine facilities, offices and shipping facilities;
- Met with the Duiker Group's divisional and mine managers to review historical performance and projected production, productivity, capital expenditures, operating cost and rehabilitation cost estimates for the 20-Year Mine Plan;
- Assessed the Duiker Group's methodology for estimating reserves and resources and the capability of the reserve base to support the 20-Year Mine Plan;
- Reviewed and evaluated historical and projected data relative to:
  - general mine layout and design;
  - reserves;
  - current and anticipated mining conditions;
  - annual production and productivity;
  - staffing levels;
  - equipment suitability and utilisation;
  - working costs and capital expenditures;
  - preparation and coal handling facilities;
  - coal quality;
  - management systems and planning procedures;
  - health and safety issues;
  - mining licences and authorisations;
  - rehabilitation cost estimates;
  - railage – COALLink;
  - port operations – Richard Bay Coal Terminal (RBCT); and
  - provided professional opinion relative to the reasonableness and suitability of the 20-Year Mine Plan for the specific geologic parameters, coal reserves and quality, mining conditions, equipment employed and the capability to achieve projections at the Duiker Group coal mining operations.

Limitations and exclusions

The CPR is primarily based on information provided by the Duiker Group, either directly from its mine sites and divisional offices, or from reports prepared by other consultants for the Duiker Group. The reports are based on information made available to WIMC before 15 January 2002.

The work undertaken for this report is a technical review of the information provided by the Duiker Group and the mine visits WIMC considered appropriate to prepare the CPR. The CPR specifically excludes all aspects of legal issues, commercial and financing matters, land titles and agreements; excepting such aspects as may directly influence technical, operational or cost issues.

WIMC has not independently forcasted the coal prices to be achieved by the Enex Group. WIMC has used coal price forecasts derived from forecasts provided by the McCloskey Group (independent coal market forecasters).

The Duiker Group provided the financial models that were reviewed for the CPR. WIMC reviewed the accuracy and consistency of the models relative to forecasting production, costs and product quality.

WIMC's opinion is that the information provided by the Duiker Group was adequate for WIMC to undertake its assignment. The CPR did not discover any significant inaccuracy, misstatement or apparent omission in the information provided.

Materiality

The CPR addresses significant operating risks. Where risks for an asset are likely to impact the Duiker Group 20-Year Mine Plan forecast of production, capital and operating costs by less than 10%, they are not considered significant. Identified significant risks were reviewed to ensure adequate allowance is provided within the Duiker Group forecasts to address these risks. Any risks, which are not adequately addressed in the Duiker Group forecasts, are considered not to be "material".

Figure 1 – General locations map

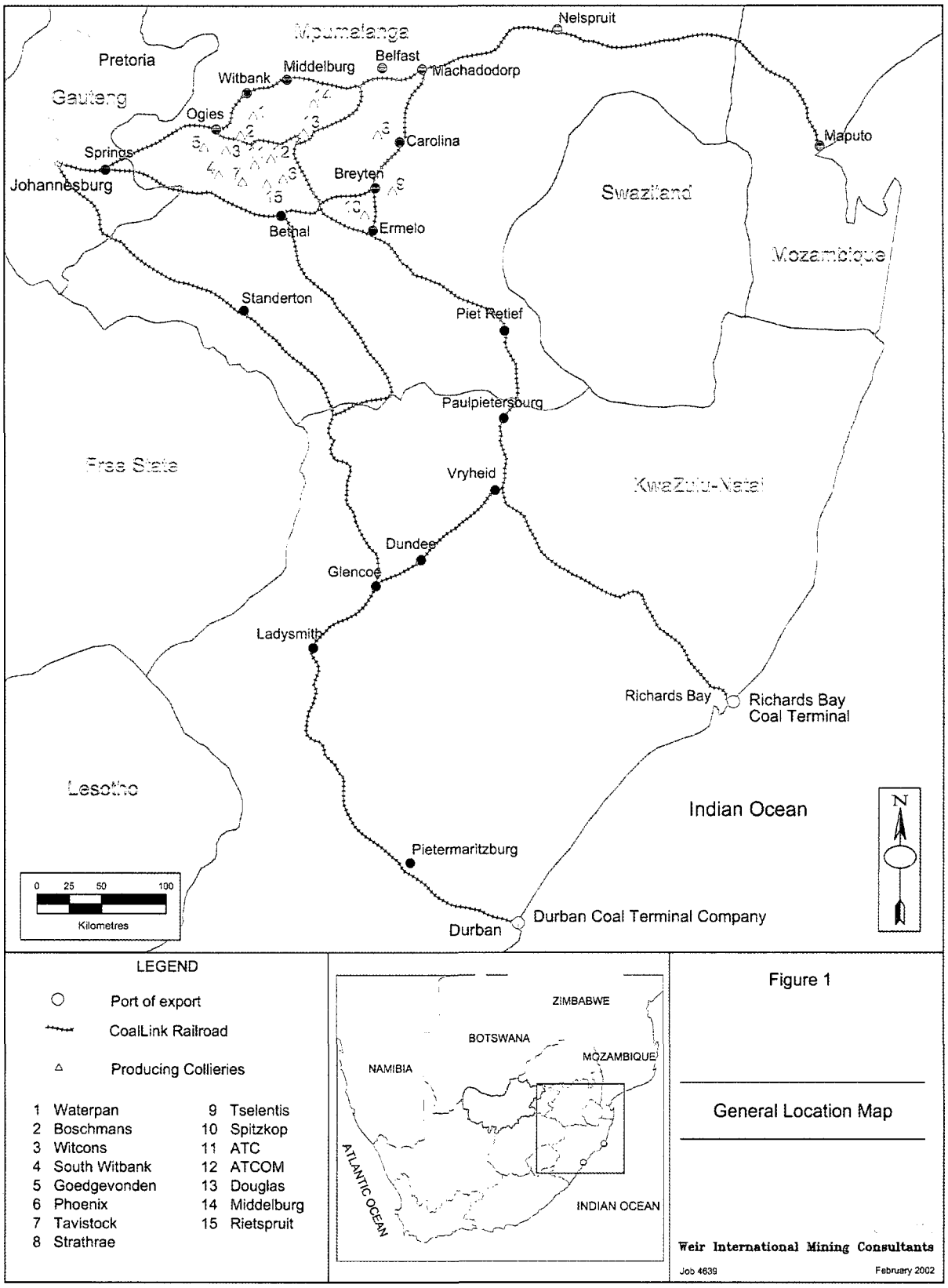


Figure 2 – Collieries and coal holdings in Mpumalanga province

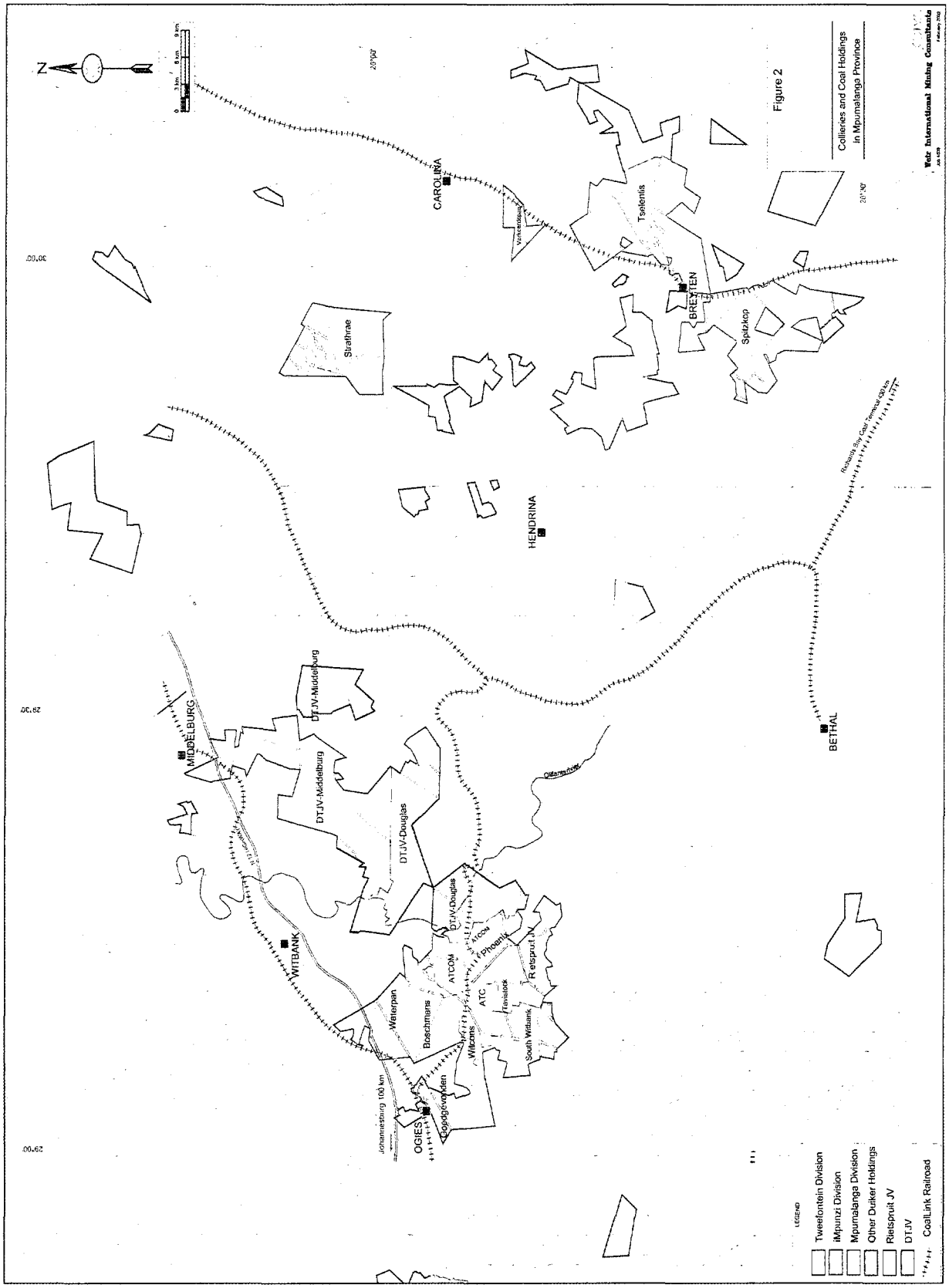
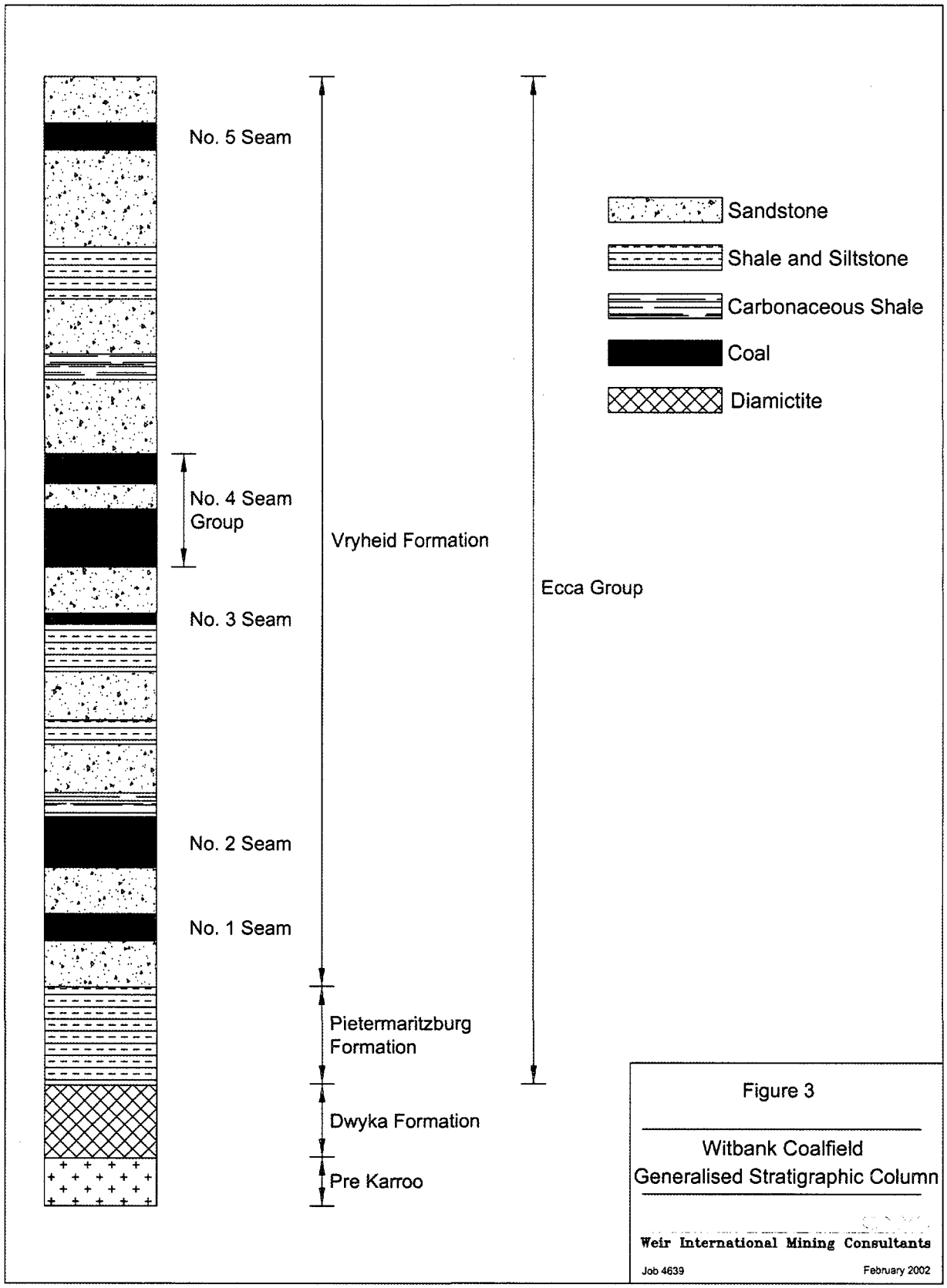
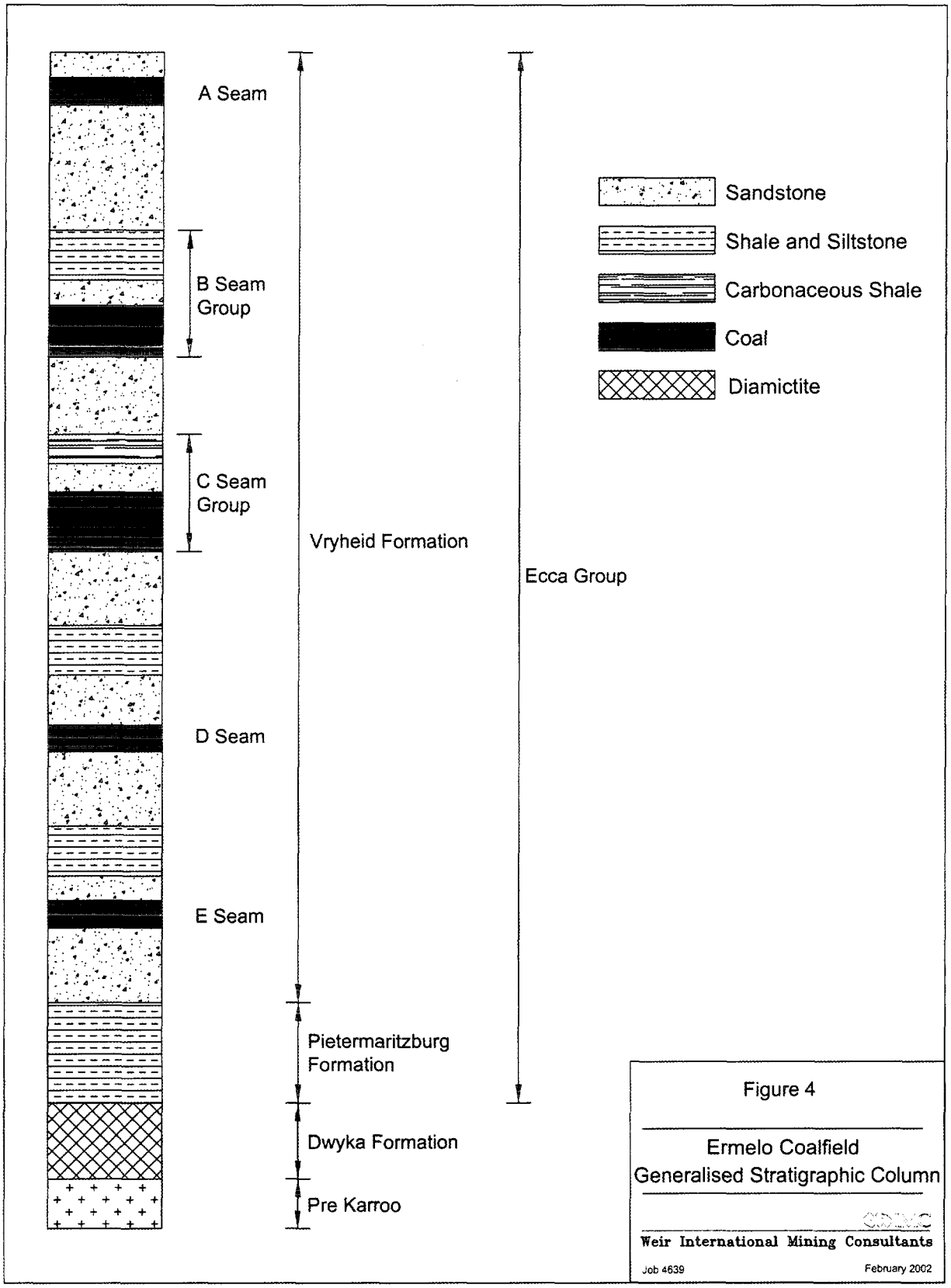


Figure 3 – Generalised stratigraphic column – Witbank Coalfield



Note: Figure not to scale

Figure 4 – Generalised stratigraphic column – Ermelo Coalfield



Note: Figure not to scale

Figure 5-1A – Tweefontein Division 5 seam reserves

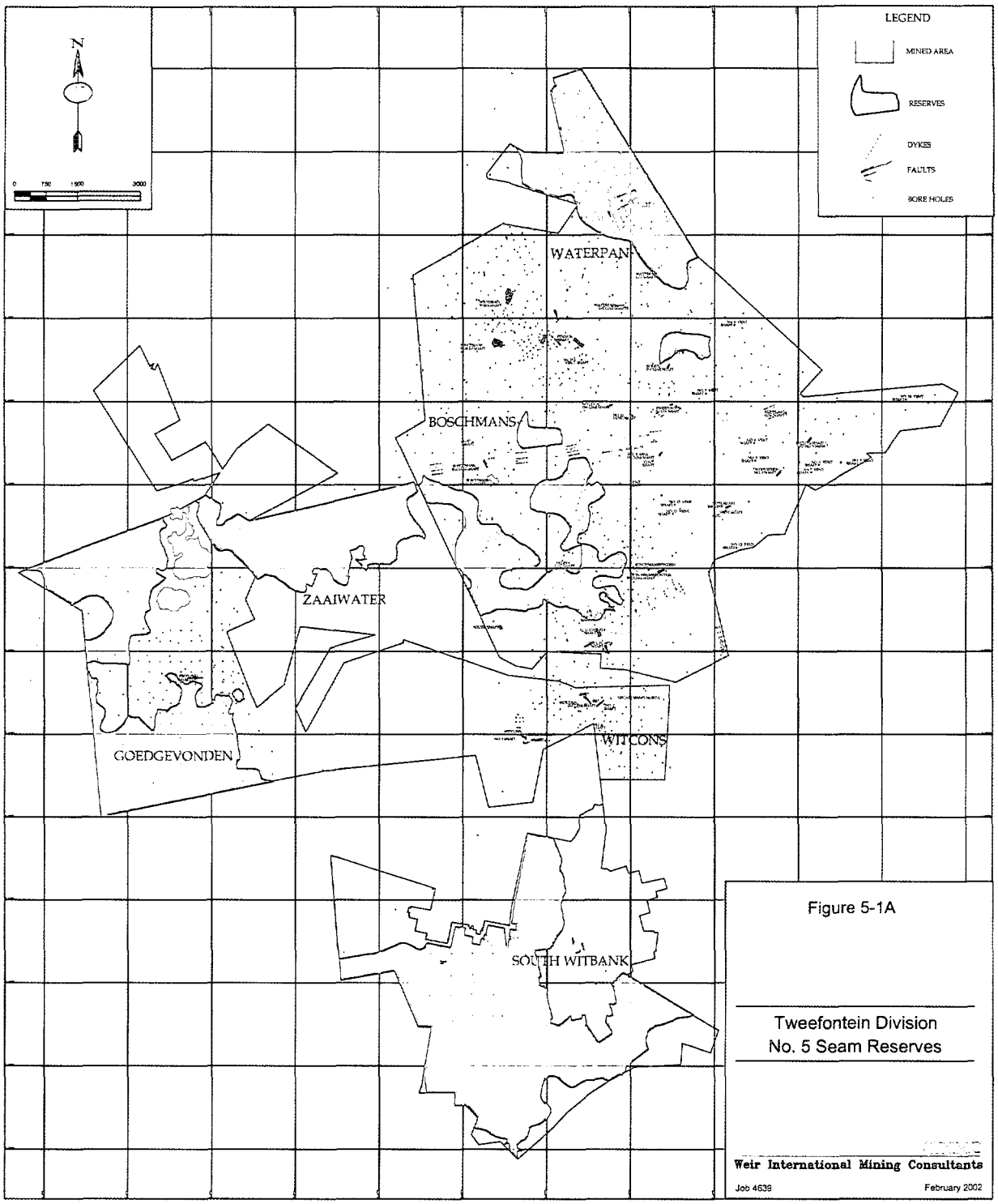


Figure 5-1B – Tweefontein Division 4 seam reserves

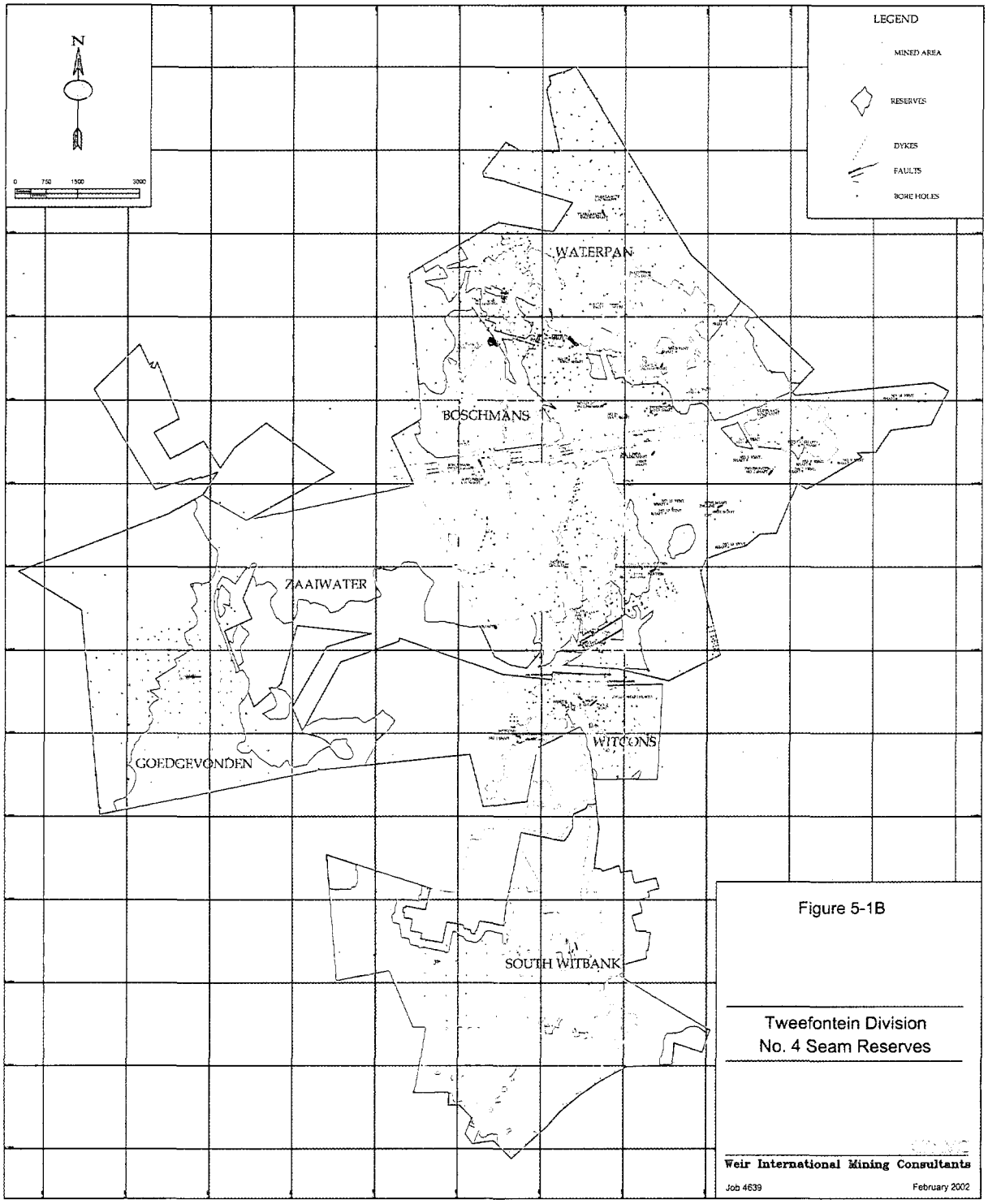


Figure 5-1C – Tweefontein Division No. 2 and 2A seam reserves

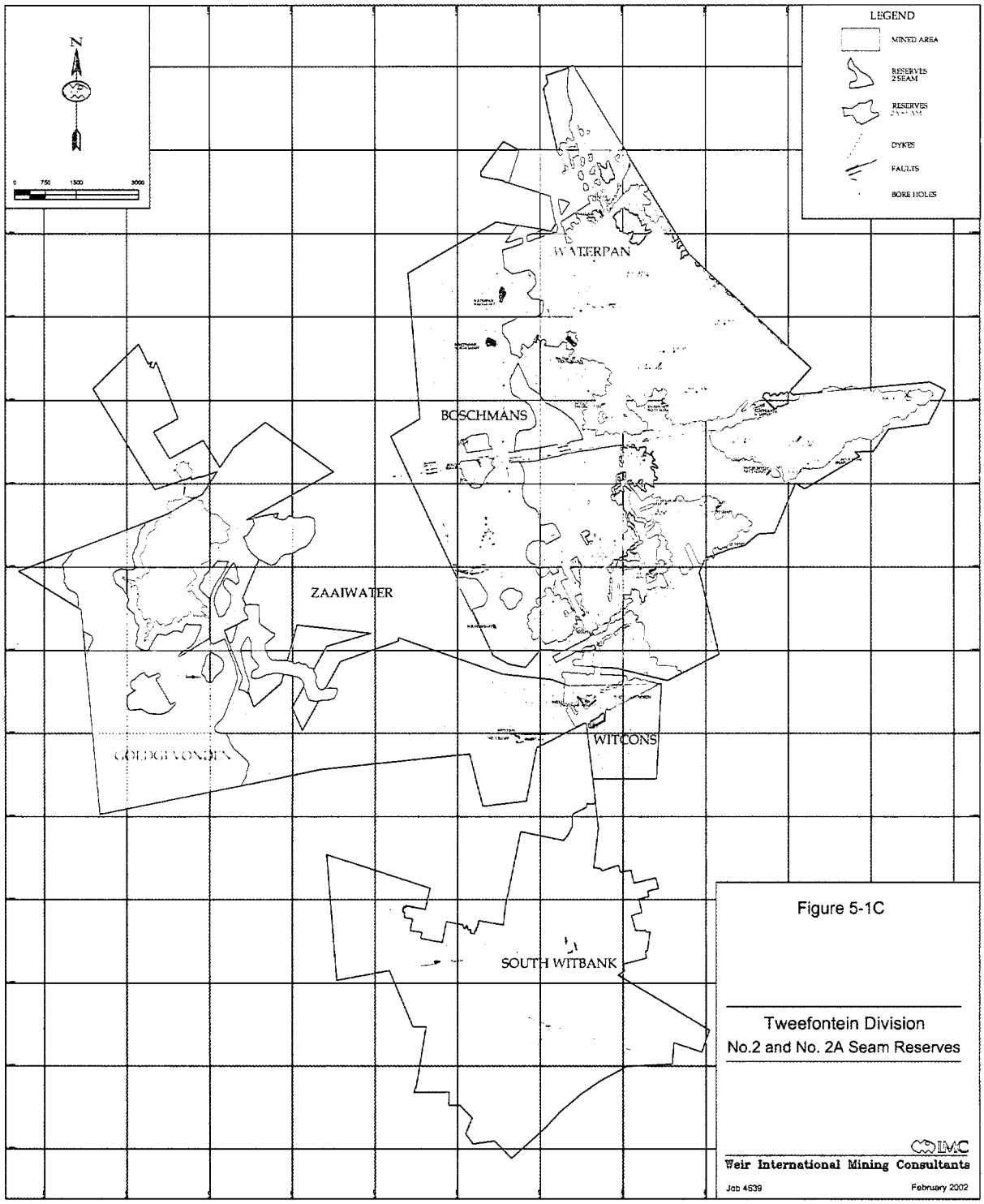


Figure 5-1D – Tweefontein Division 1 seam reserve

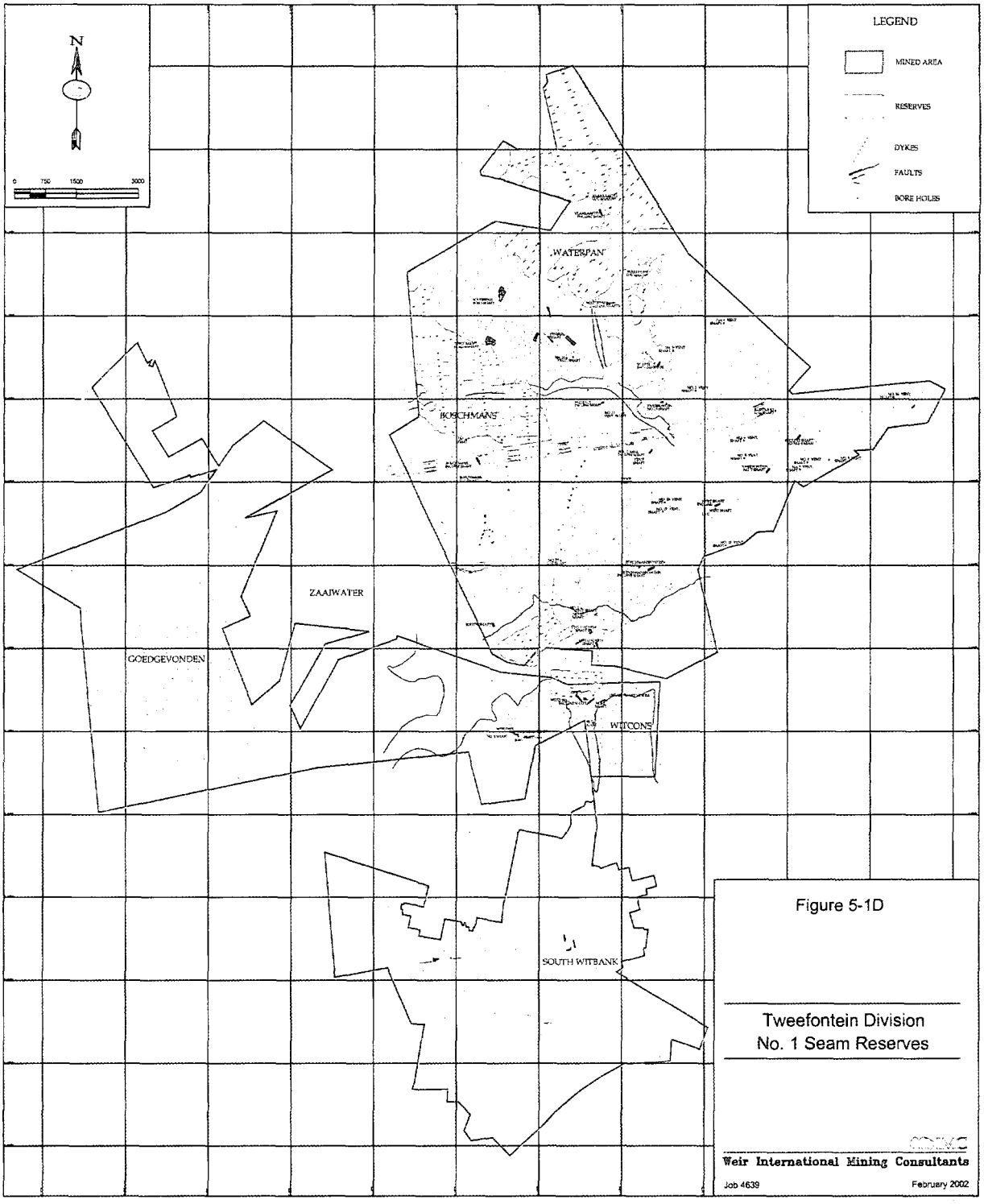


Figure 5-2A – iMpunzi Division No. 4 seam reserve plan

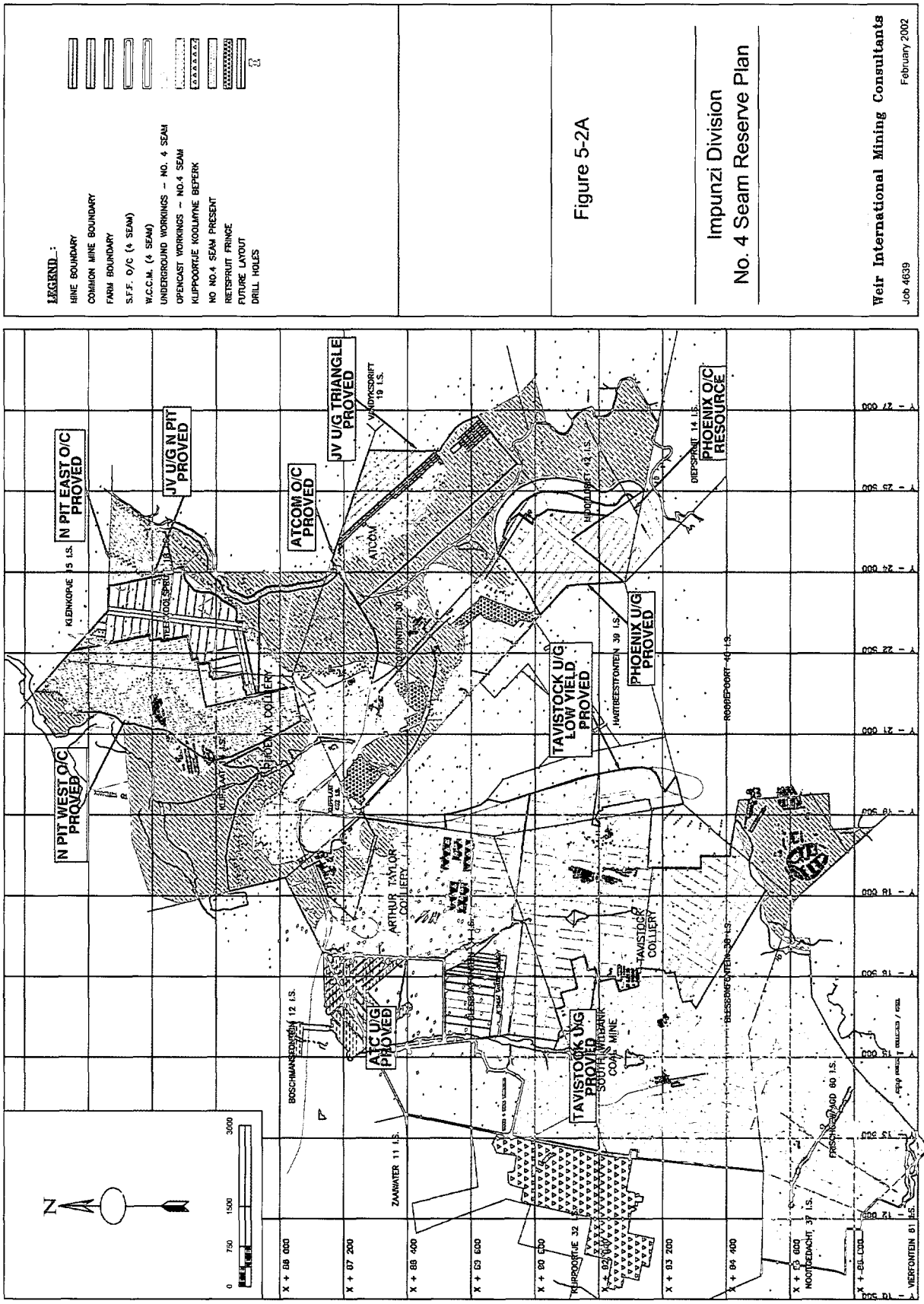


Figure 5-2B– iMpunzi Division No. 2 seam reserve plan

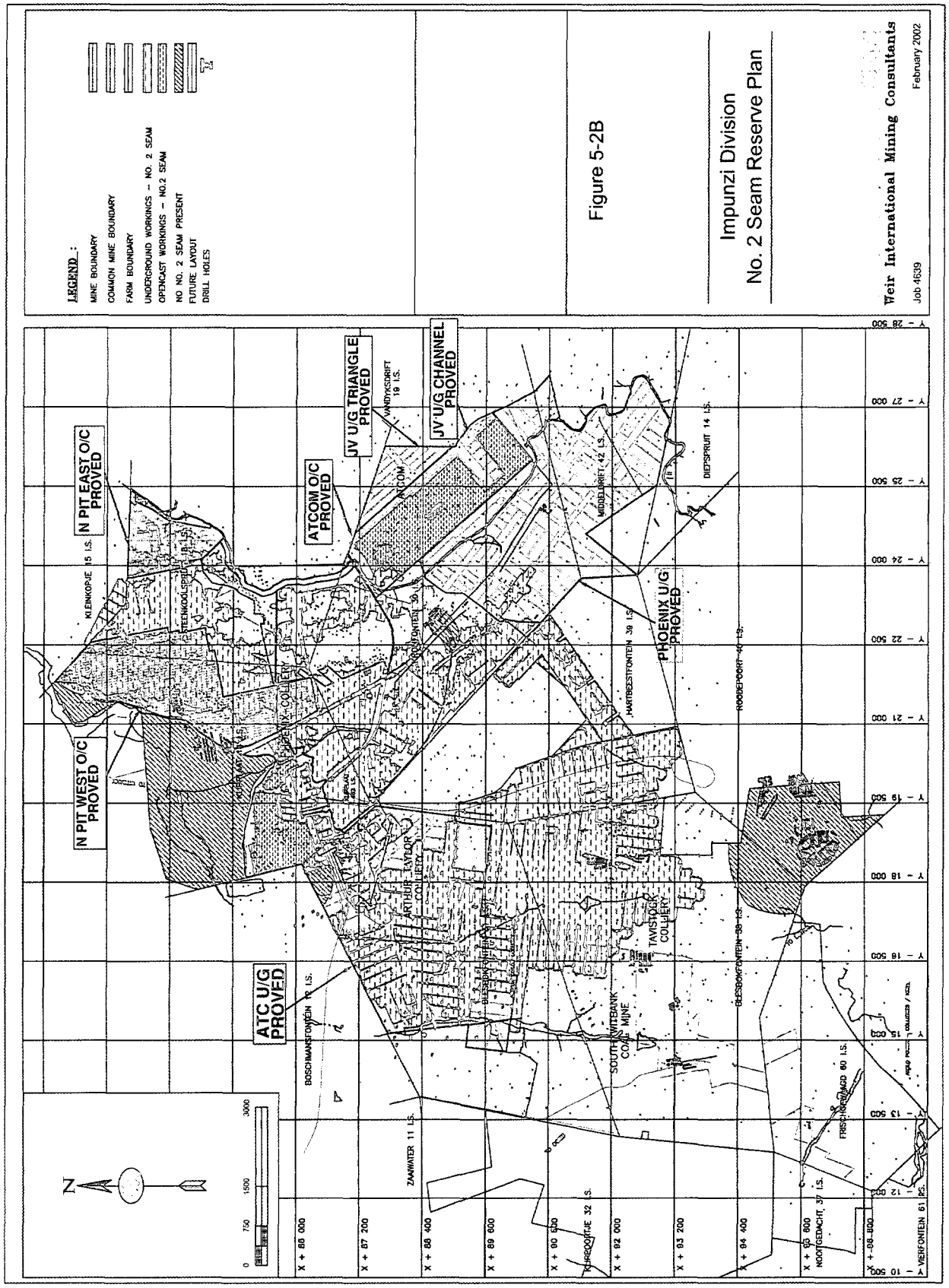


Figure 5-2C – iMpunzi Division No. 1 seam reserve plan

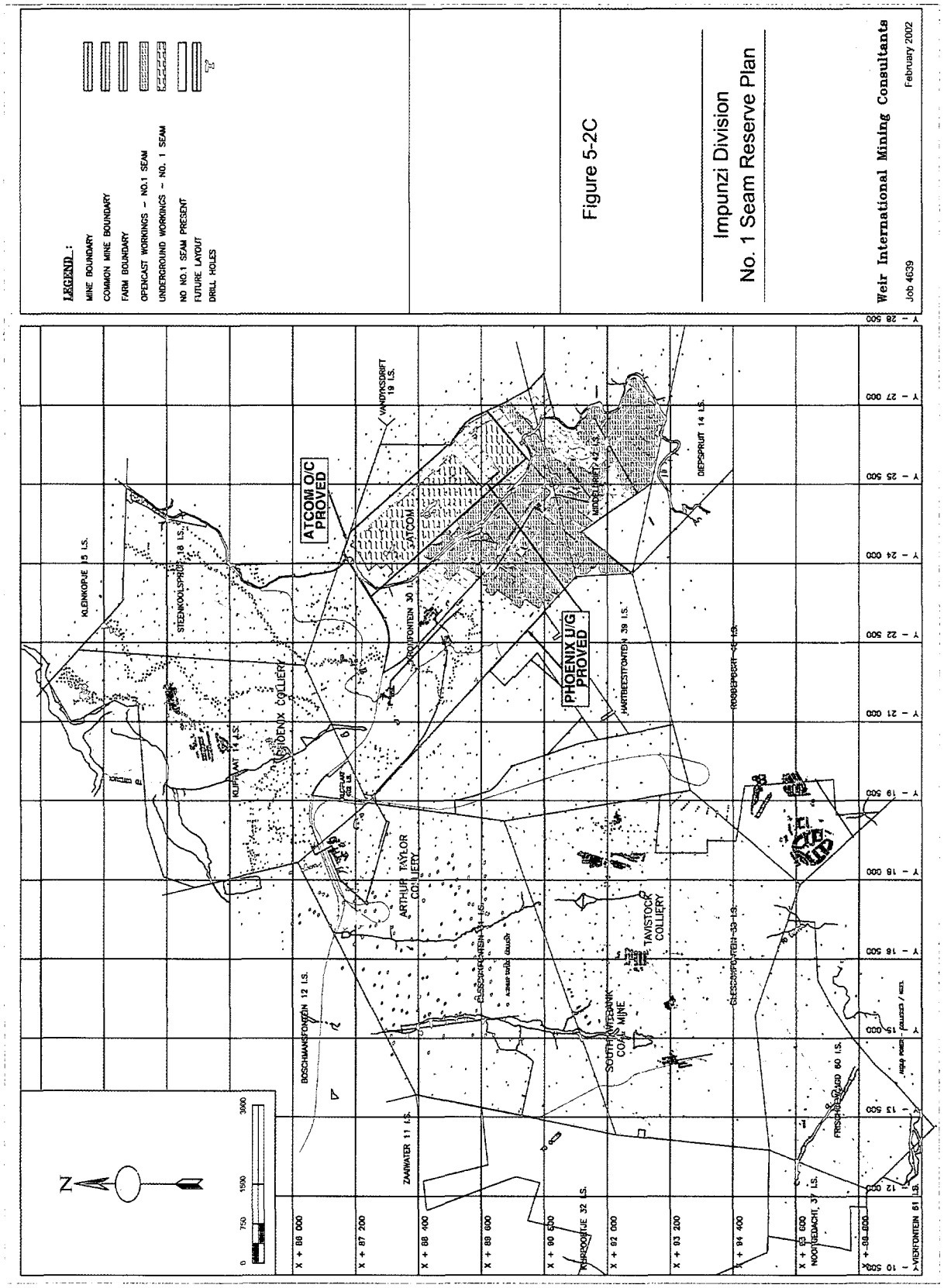


Figure 5-3-3 – Mpumalanga Division Strathrae Colliery life of mine reserves

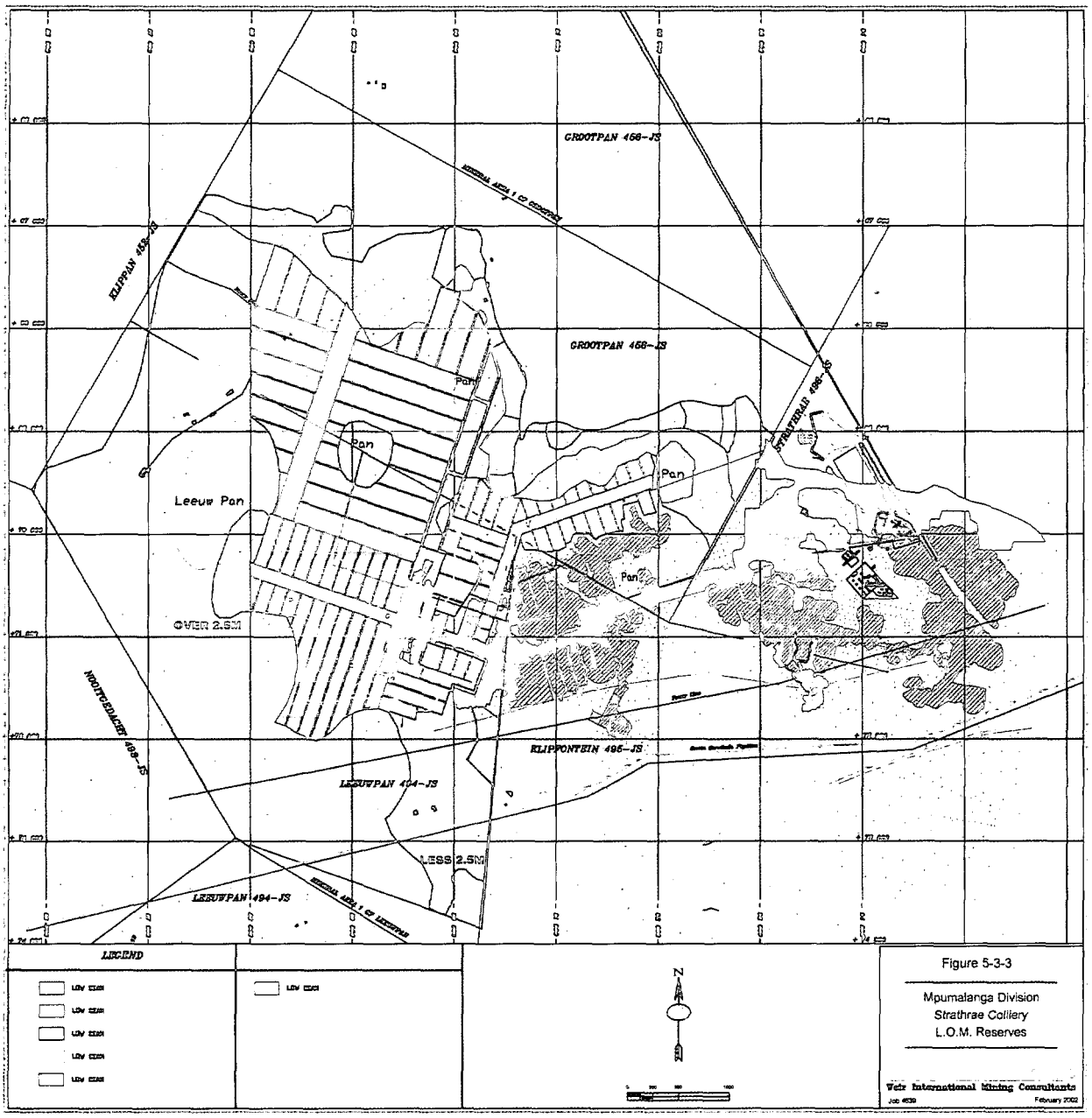


Figure 5-3-4A – Mpumalanga Division Tselentis Colliery Life of Mine (B seam)

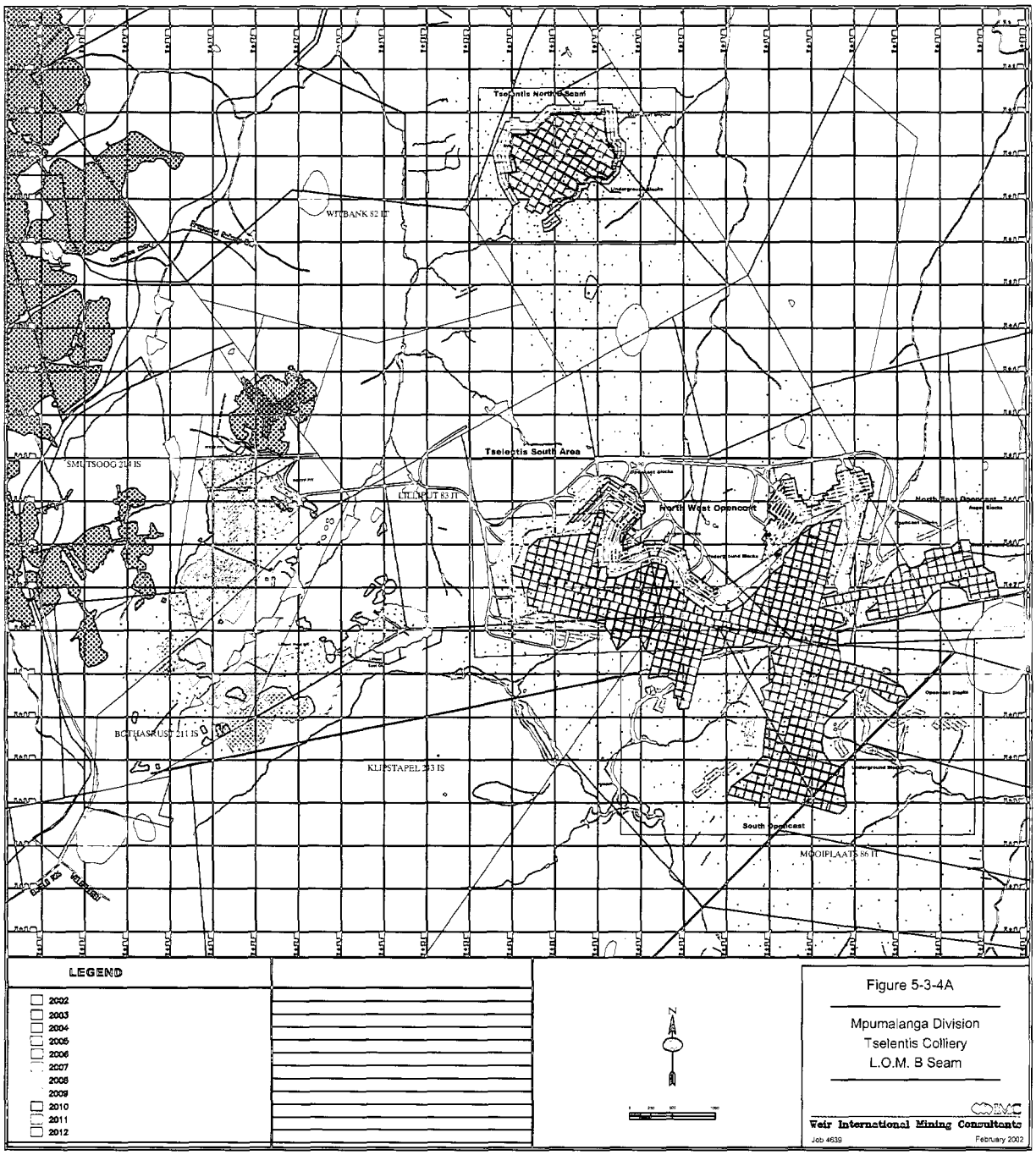


Figure 5-3-4B – Mpumalanga Division Tselentis Colliery life of mine (C seam)

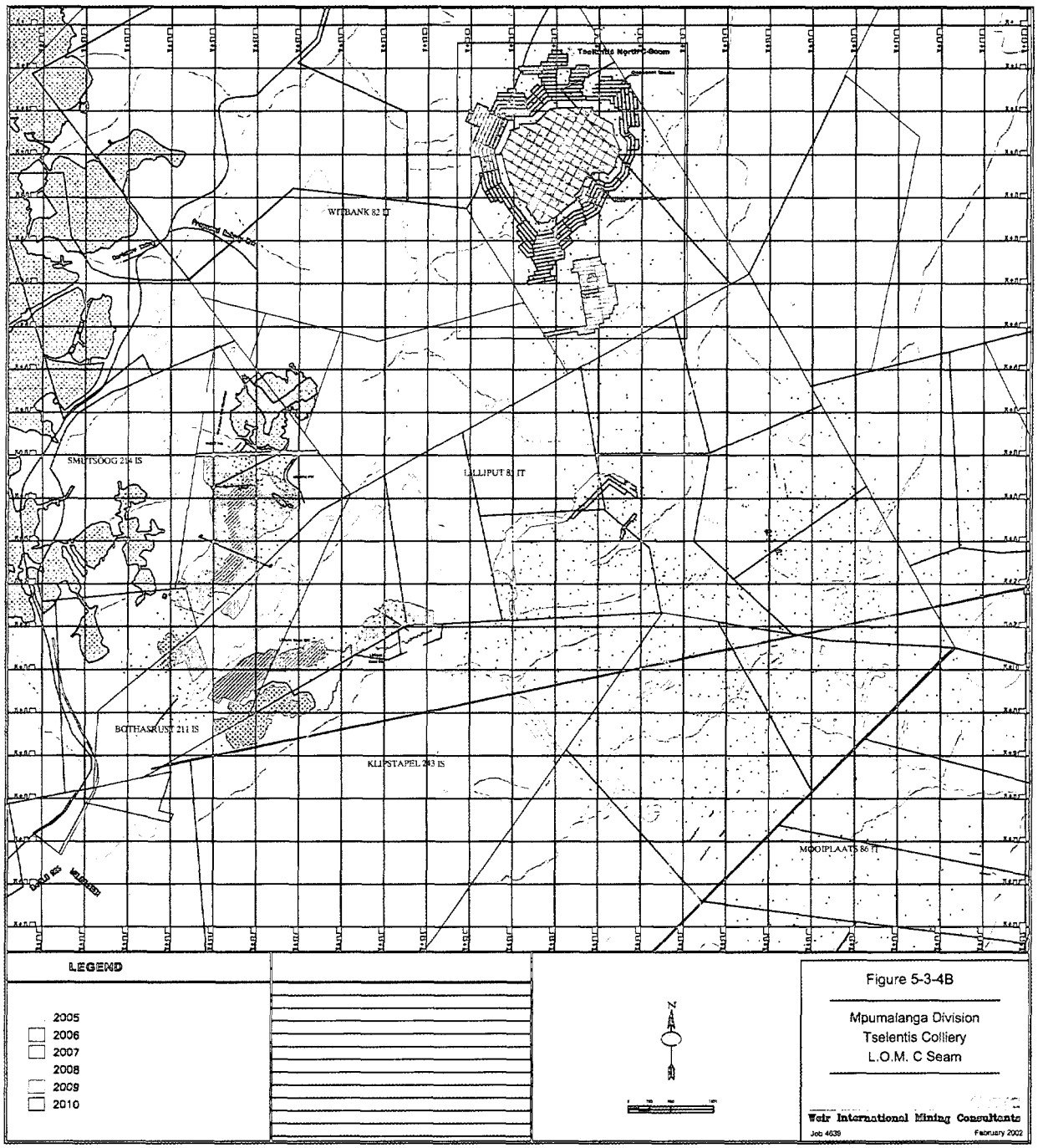


Figure 5-3-5A – Mpumalanga Division Spitzkop Colliery life of mine (B seam)

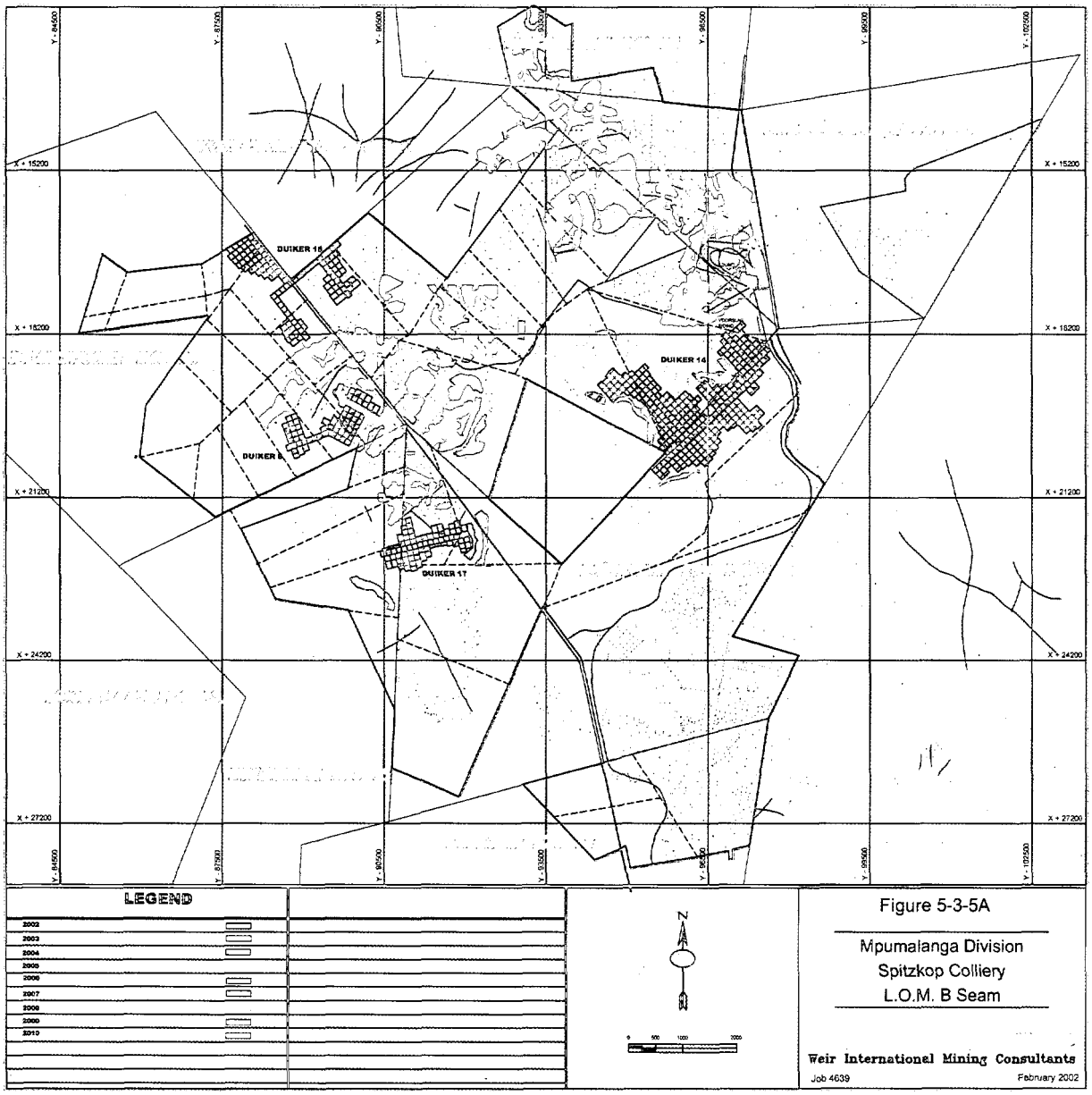
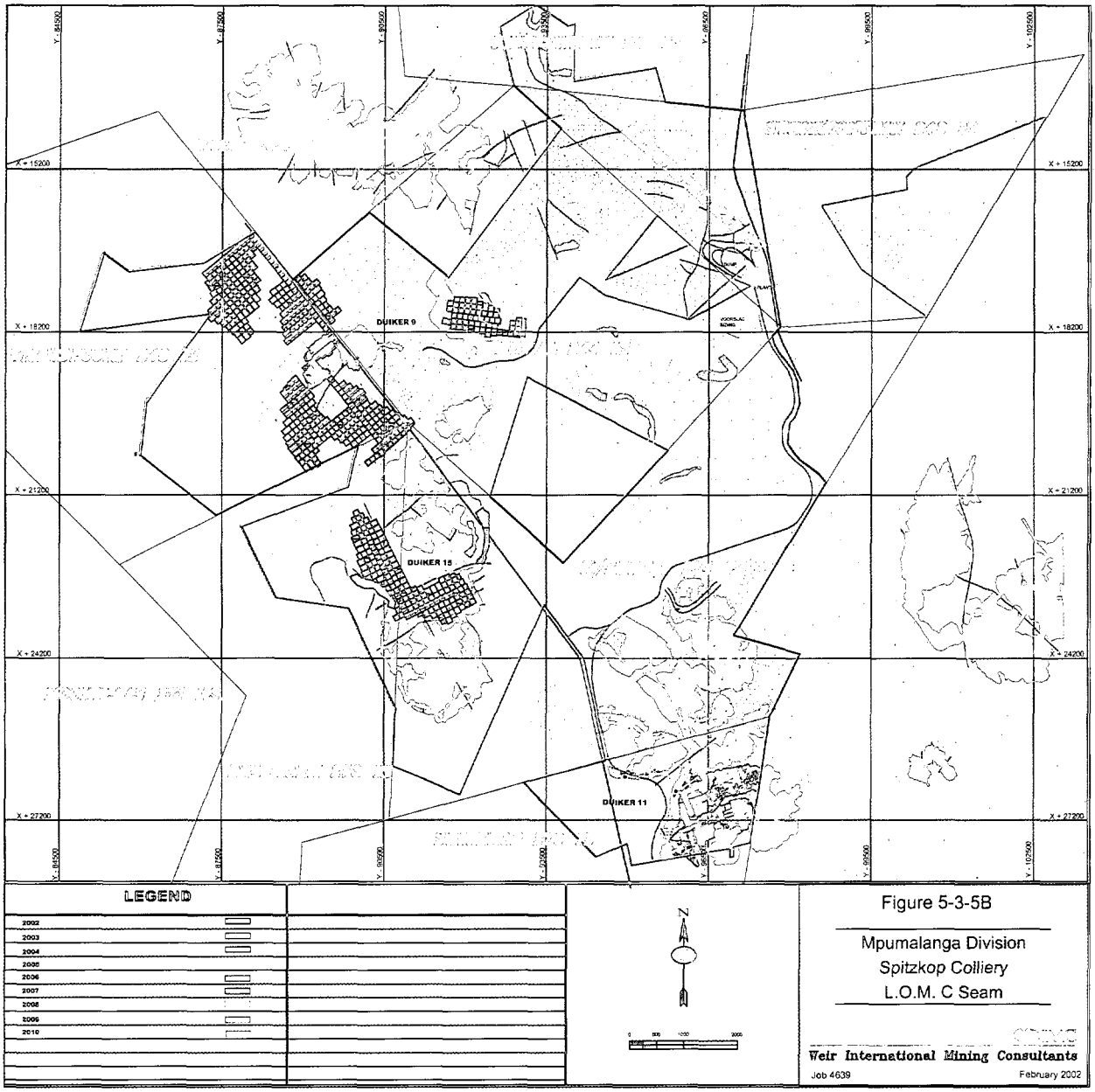


Figure 5-3-5B – Mpumalanga division Spitzkop Colliery life of mine (C seam)



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Competent person's report for the Reocín Mine and San Juan de Nieva zinc assets held by Asturiana de Zinc, S.L.

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20 March 2002

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Dear Sirs

COMPETENT PERSON'S REPORT FOR THE REOCÍN MINE AND SAN JUAN DE NIEVA ZINC ASSETS HELD BY ASTURIANA DE ZINC, S.L.

1. Introduction

1.1 Purpose of report

This report has been prepared by Pincock, Allen & Holt ("PAH") for inclusion in listing particulars (the "Listing Particulars") to be published by Xstrata plc (the "Company") in connection with a global offer of ordinary shares in the Company (the "Global Offer") and the proposed admission of the ordinary shares of the Company to the Official List of the UK Listing Authority (the "UKLA") and the admission of such shares to trading on London Stock Exchange plc's market for listed securities.

Lima

PAH was instructed by the directors of the Company to conduct an independent technical review of the Reocín mine and San Juan de Nieva zinc assets held by Asturiana de Zinc S.L. ("Asturiana") zinc mine and process facilities. This report, which summarises the findings of our review, has been prepared in order to satisfy the requirements of a competent person's report ("CPR") as set out in Chapter 19 of the listing rules of the UKLA.

PAH has conducted its review in accordance with the requirements of Chapter 19 of the listing rules of the UKLA and, with respect to resources and reserves, the "Australasian Code for Reporting Mineral Resources and Reserves" (September 1999) published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia (the "JORC Code"). The JORC Code establishes the nature of evidence required to ensure compliance with the code. The review was conducted with regard to the JORC Code because it is internationally recognised. In this report, all resource and reserve estimates are reported in accordance with the JORC Code and have been substantiated by evidence obtained from our site visits and observations. They are supported by details of drilling results, analyses and other evidence and take account of all relevant information supplied to us by Asturiana's management and the directors of the Company.

Santiago

In accordance with Chapter 19 of the listing rules of the UKLA, only Proved and Probable Reserves of Reocín have been valued in addition to the San Juan de Nieva smelting plant.

1.2 Capability and independence

This report was prepared on behalf of PAH by the signatories to this report, details of whose qualifications and experience are set out in Annex A to this report.

Seattle

PAH operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to the resources and financial services industry.

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PAH has received, and will receive, professional fees for its preparation of this report. However none of PAH or its directors, staff or sub-consultants who contributed to this report has any interest in:

- the Company or Asturiana; or
- the mining assets reviewed; or
- the outcome of the Global Offer.

Drafts of this report were provided to Asturiana, but only for the purpose of confirming the accuracy of actual material and the reasonableness of assumptions relied upon in the report.

1.3 Scope of work/materiality/limitations and exclusions

PAH reviewed the assets in accordance with the scope of work and exclusions and limitations and on the basis of the materiality criteria set out in Annex B to this report.

PAH has independently assessed the assets of Asturiana by reviewing pertinent data, including resources, reserves, manpower requirements, environmental issues and the life-of-mine ("LOM") plans relating to productivity, production, operating costs, capital expenditures and revenues. All opinions, findings and conclusions expressed in this report are those of PAH and its sub-consultants.

1.4 Inherent mining risks

Mining, refining and sale of base metals such as zinc and lead are carried out in an environment where not all events are predictable.

Whilst an effective management team can, firstly, identify the known risks, and secondly, take measures to manage and mitigate these risks, there is still the possibility of unexpected and unpredictable events occurring. It is not possible therefore to remove totally all risks or state with certainty that an event that may have a material impact on the operation of the mine or smelting/refining operation will not occur.

1.5 Glossary of terms

Words and expressions used in this report are defined in Part X of the Listing Particulars.

2. Overview

2.1 Description of assets

Asturiana has four operational assets, all of which are located in northern Spain. Minority shareholders currently hold less than 7% of Asturiana.

- Reocín is a mining complex comprised of the following operational areas for the production of separate lead and zinc concentrates: an underground mine, an open pit mine, a concentrator (mill) mine waste management, and infrastructure. **Figure 2-1** shows a location map of Reocín. **Figure 2-2** shows an overview of the various facilities at the Reocín mine. Zinc ore has been continuously mined at the Reocín site since 1857. Asturiana purchased the mine in 1981.

- Hinojedo roasting plant is located approximately 6 kilometres north-east of the Reocín mine and processes zinc concentrates from the Reocín mine to produce calcine. The calcine is transported to San Juan de Nieva zinc operation for processing. Additionally, lead concentrates from Reocín are stored here prior to loadout and shipment to external lead smelting facilities. The Hinojedo facility dates to 1929, with a major rehabilitation program completed in 1996 to bring the plant to its current operating configuration. The facility was acquired by Asturiana in 1980.

- The San Juan de Nieva zinc smelter/refinery operation utilises conventional technologies for the production of zinc ingots, zinc alloys, zinc for plating and zinc dust. By-products from San Juan de Nieva are sulphuric acid, mercury and germanium oxide. The unit's operations at San Juan de Nieva include: concentrate receiving and storage, roasting and acid plant, leaching and purification, electrowinning and casting. The San Juan de Nieva smelter was originally commissioned in 1960 and has undergone several expansions, with the most recent being completed in August 2001.

- The Arnao manufacturing facility produces zinc oxide dust, rolled zinc products, lead anodes, and zinc wire. The Arnao factory is reported to have been in operation as early as the 1830s. Asturiana purchased the facility in 1980.

Hinojedo and Arnao are under the management control of San Juan de Nieva.

2.2 Summary of geology

The zinc-lead mineralisation of the Reocín mine is hosted in a series of north-west-dipping limestone beds that have been completely dolomitised. Regional tectonics have caused some minor folding and faulting within the area. Mineralisation occurs in the dolomites over an area approximately 3,500 metres long by 800 metres wide. The thickness of the mineralisation varies between 1.5 metres and 6 metres. Primary mineralisation consists of banded sphalerite and galena. The mineralisation outcrops to the south-east, where surface weathering resulted in the oxidation of the original sulphide minerals to calamine, smithsonite, hydrozincite, and hemimorphite. Initial mining was of the oxide material; however, remaining resources/reserves are predominantly of sulphide mineralogy, with a minor component of oxide material in the open pit.

2.3 Summary of resources and reserves

The remaining reserves as of 31 December 2001 are estimated to be 1.44 million tonnes averaging 7.42% zinc and 0.80% lead. **Table 2-1** shows a summary of the reserves.

Table 2-1 - Summary of Reserves

Mine	Tonnes ('000)	%Zn(S)	%Pb(S)
Proved Reserves	1,441	7.42	0.80

Note: No substantial, additional, undiscovered reserves are likely to exist at Reocín.

Asturiana reports the mineable ore reserves at Reocín based on the JORC Code for reporting reserves and resources. The JORC Code is an acceptable reporting method for ore reserve determination to the mining industry and financial institutions. Based on the JORC Code guidelines the remaining reserves are classified by Asturiana in the proven confidence category.

2.4 Mines, projects and process facilities

The Asturiana operations include the Reocín mine and the San Juan de Nieva zinc smelting/refinery, the Hinojedo roasting facility and Arnao factory.

2.4.1 Mining and smelting operations

The Reocín mine, located in the Spanish region of Cantabria, 5 kilometres west of the town of Torrelavega and 30 kilometres south-west of the port of Santander is Asturiana's only mining operation. The mine includes both open pit and underground operations. The remaining life of both the underground and open pit mines is 1.5 years. The two operations are being mined at rates that will result in near simultaneous exhaustion of both mining areas. Asturiana has no further mining projects.

The open pit is currently extracting mineralisation in the eastern zone of the deposit, which has already been worked underground. Future pit development will extend towards the north-east following the mineralisation in the Barrendera area. The south-west part of the deposit has now been mined out on the surface and the pit is being backfilled with waste from the active parts of the pit and filtered tailings from the concentrator.

For the open pit, Asturiana provides the engineering, drilling and blasting, while a contractor (MOTA) is responsible for the loading and haulage functions. MOTA has been performing this role for 24 years and enjoys a good relationship with Asturiana.

The open pit mining equipment is adequate in both size and numbers to meet the production requirements until the end of mining in mid-2003.

Most underground production comes from the extraction of old pillars in the Capa Sur orebody and by cut and fill mining in the Central Area (Visera). In addition cut and fill mining takes place in the West Area (Punta de Lanza). Haulage drifts are driven into the footwall limestones and most of them have concreted floors. The underground mine workings are accessed by the Santa Amelia shaft, and the Jorge Valdés inclined ramp that begins within the open pit.

All underground mining activities are performed by Asturiana. The underground mine access, infrastructure, equipment and personnel are more than adequate for the projected mine production until the end of the mine life.

Ore processing at the Reocín concentrator is done in conventional crushing, grinding and flotation circuits for the production of separate lead and zinc concentrates. The Reocín concentrator is a modern, clean and well-run facility.

Zinc concentrates from the Reocín mine are processed through the roasting plant at the Hinojedo facility to produce calcine. The San Juan de Nieva zinc smelting/refining operation receives calcine from Hinojedo and zinc concentrates from numerous sources for the production of zinc, sulphuric acid and germanium oxide as by-products. Zinc oxide is produced at Arnao in three distillation columns using zinc ingot and skimmings from San Juan de Nieva as feed.

All of the processing and smelting facilities are capable of producing at the forecast levels. Forecast productivity levels for the smelting and refining facilities are reasonable, acceptable and comparable to other zinc plants around the world.

2.4.2 Production levels

PAH has reviewed the Reocín mine plan and production schedule and found them to be achievable for the remaining ore reserves. Future productivity from both the open pit and underground operations will be at a level to meet the production requirements. Similarly, at San Juan de Nieva, the production plan accurately reflects the forecast production rates, extraction rates and concentrate feed stocks.

Table 2-2 – Reocín historical zinc and lead concentrate total production data

Parameter	Units	1999	2000	2001
Zinc concentrate:				
Quantity	tonnes	143,861	134,893	131,265
Zinc	%	59.47	60.01	60.38
Lead	%	0.76	0.80	0.78
Lead concentrate:				
Quantity	tonnes	10,022	9,320	8,201
Lead	%	71.53	71.07	71.49
Zinc	%	3.26	3.35	2.81

Table 2-3 – San Juan de Nieva plant total production

Zinc	Units	1999	2000	2001
Cathodes received	tpa	338,605	345,320	396,927
Zinc dust produced	tpa	14,104	15,539	18,479
Dross produced	tpa	4,129	3,799	6,135
Zinc cast	tpa	320,372	325,982	372,313
SHG ingot	tpa	227,552	211,675	252,845
Die-cast alloys	tpa	25,931	37,443	34,623
Galvanise	tpa	53,921	70,390	75,973
Zinc oxide	tpa	18,512	11,200	13,677
Other	tpa	-	225	-
Sulphuric acid	tpa	512,100	512,582	584,426

2.4.3 Transport

The final lead concentrate is trucked from the Reocín concentrator to Asturiana's Hinojedo facility, 6 kilometres north-east of the Reocín mine, or the nearby port of Santander for shipment to smelters. The final zinc concentrate is either trucked to the Hinojedo roasting facility for calcining or to Asturiana's San Juan de Nieva zinc plant for processing. All calcine produced at Hinojedo is trucked to San Juan de Nieva.

The San Juan de Nieva smelter receives most zinc concentrates used for feed stock through the port of Avilés. Various zinc products and sulphuric acid from San Juan de Nieva are shipped by truck or loaded onto ships at the Avilés port for shipment to consumers. Germanium oxide is shipped by truck to European refineries. Zinc oxide is bagged and shipped by truck to domestic consumers.

2.4.4 Management

PAH is confident that Asturiana's management and technical personnel at the Reocín mine, San Juan de Nieva smelter, Hinojedo roaster and Arnao factory sites, are a capable project team for the effective management of the operations. Most of the management and technical personnel have extensive experience at these facilities, with many having long tenures. PAH is of the opinion that Reocín's management and technical personnel are capable and understand the key operational and environmental issues, production factors, technical parameters and risks associated for all aspects of the operations. Although projected results are subject to variances, changes and risks typically associated with mining, smelting and refining projects, the production plans are based on sound engineering work and industry accepted practices in regards to reserves, mine plan, production forecasts, environmental issues, capital and operating costs.

2.4.5 Health and safety

There are no identified health and safety issues at the Reocín mine. Considering the age of the Reocín operation, the facilities are in good condition. Air emissions from the operations are limited to vehicle exhaust. Noise is generated principally by the mining and ore crushing/grinding operations. At these operations, employees have been issued with safety equipment for protection. In general these facilities are located well away from potential noise receptors.

Health and safety issues at Hinojedo, San Juan de Nieva and Arnao are primarily related to: (1) air emissions from the roasting/acid plant facilities; (2) fugitive dusts from concentrates and zinc dust production; and (3) jarosite residue from the leaching circuit. No major health or safety issues were identified during the site visit.

2.5 Environmental issues and management

2.5.1 Reocín mine complex

Considering the age and remaining life of the facilities at the Reocín mine, house-keeping is generally very good. The facility discharges are limited to:

- **Air** - vehicle and limited fugitive dust emissions;
- **Water** - mine dewatering, excess water from the concentrator and tailings pond decant;

- **Mine Waste** - tailings, waste rock; and
- **Solid Waste** - office, shop and contractor shop wastes.

Dewatering of the mine produces approximately 1,200 litres per second of water, which is discharged to the Besaya River through a small lake below the tailings pond. During dry periods, the mine discharge makes up a majority of the base flow in the river. Process water, as well as surface water runoff in the concentrator and crusher areas is recycled within the concentrator circuit. Excess water from the concentrator is treated and discharged. Excess plant flows and tailings pond decant are also discharged to the lake with the mine dewatering. The plant and tailings pond discharges are insignificant in comparison to the dewatering discharge volume.

Waste rock and tailings are currently hauled and disposed of in the in-pit waste dump at the west end of the open pit. Tailings filter cake is co-disposed with the waste rock in this waste dump. The filtration plant is routinely out of service for maintenance for a period of approximately 30 days per year. When the plant is down, tailings are pumped as slurry to the existing tailings pond. The pond has adequate capacity for the remaining life of the mine. Access and haul roads are routinely watered to control fugitive dusts from the operation. Vehicle emissions occur at the site, but are considered normal for this type of operation.

The mine has already reclaimed most of the historic waste rock dumps and tailings ponds and continues with its reclamation activities. Currently only the active waste dumps around the open pit, the existing active tailings pond and the plant and support building areas have not been reclaimed. A final closure plan has not been approved by the regional mining authority. Significant issues, which must be resolved, include potential impacts on the Besaya River once mine dewatering ceases as well as the long-term quantity, quality and final disposition of water from the underground mine workings. Mine closure and rehabilitation costs are discussed in Section 2.7.2.

2.5.2 San Juan de Nieva facility

The San Juan de Nieva zinc refinery was brought on line in 1960 and has been expanded and modernised several times, most recently in 2001. House-keeping at the facility is generally very good and recent modifications to the plant should provide for continuing environmental improvement. Discharges from the facility include:

- **Air** - stack emissions from the roasters/acid plant facilities, fugitive dust from concentrates and zinc dust production;
- **Process wastes** - jarosite and jarofix from the leaching process, residues from the purification circuit, sludges from the water treatment plant; and
- **Water** - process, stormwater and cooling water.

The San Juan de Nieva facility produces saleable zinc from zinc concentrates. Concentrates are received either through the port of Aviles or by truck from Hinojedo. Major plant processes include roasting with acid production from the off-gas treatment, leaching, purification, electrowinning, melting and casting.

Stacks at each of the roasters are equipped with air-monitoring equipment to measure particulate and SO_2 emissions. The plant also has four monitoring stations that monitor air quality at the perimeter of the property. The local environmental authority also monitors air quality at four locations around the port of Avilés. While the plant has occasionally exceeded the existing limit at the stack monitoring points, it has generally been in compliance at perimeter monitoring stations operated by Asturiana and the local environmental authority.

Cooling and process water are generally drawn from groundwater and local public water supplies. Process waters are treated in the water treatment plant prior to discharge to surface water in the port of Avilés. Cooling water which is not in contact with the process is discharged directly either to the port or through a marine outfall. The new Plant 4 roaster includes a closed-loop cooling system which continuously recycles water through a cooling tower. In general, the plant meets effluent discharge limits for its water discharges.

Jarosite, iron sulphate, is a major process residue. Until the most recent plant upgrades in 2001, jarosite was disposed of in ponds to the north of the plant. As part of the plant upgrade, a jarofix plant was installed. In the jarofix process, the jarosite is mixed with lime and Portland cement, producing a stable solid product. Metals within the jarofix are rendered non-leachable by this process. Asturiana has developed a jarofix disposal site at the Estrellin Quarry, located approximately 8 kilometres from the plant by road. Treated jarofix is hauled to the site by covered, sealed truck. The disposal site is lined and includes groundwater monitoring wells and leachate collection, treatment and disposal. The facility has a design life of 23 years.

Process residues, including cadmium sponge and other residues from the purification process are handled and disposed of by a licensed hazardous waste contractor at a licenced disposal facility.

2.6 Statutory authorisations

Asturiana controls the mineral rights and the right to mine at the Reocín mine through a Spanish Exploitation Concession as shown in **Table 2-4**. Mineral rights to adjacent lands for exploration are controlled through Spanish Permissions To Investigate. Information provided by Asturiana indicates that they have the right to mine through the remaining life of the mine. However, PAH has not conducted a legal title review.

Table 2-4 – Mineral rights in the Cantabria province

Type	Number/name	Hectares	Date granted	Expires
Exploitation Concession	Reocín Group	13,630.83	Various	2003
Permission To Investigate	16,306 Spat 1a Fraction	498.06	1987	2004
Permission To Investigate	16,306 Spat 4a Fraction	27.67	1987	2005
Permission To Investigate	16,325 St.Vic. 1a Fraction	3,514.09	1989	2002
Permission To Investigate	16,325 St.Vic. 2a Fraction	249.03	1989	2002
Permission To Investigate	16,325 St.Vic. 3a Fraction	83.01	1989	2002
Permission To Investigate	16,503 Paloma	138.35	1998	2002
Permission To Investigate	16,537 Ajo	8,134.98	1998	pending
Permission To Investigate	16,537 Cobreces-2	608.74	1999	2002
Permission To Investigate	16,563 Oeste	1,549.52	2000	pending

2.7 Costs

2.7.1 Operating costs

Reocín mine

PAH has reviewed the forecast operating costs for the remaining LOM and considers them reasonable and acceptable for Reocín based on the extraction rates, types of operation, historical costs, condition of the plant and equipment, type of technology employed and plant capacity.

San Juan de Nieva

PAH has reviewed the forecast operating costs and considers them reasonable and acceptable for San Juan de Nieva based on the condition of the plant and equipment, type of technologies employed and plant capacity.

2.7.2 Capital costs

Reocín mine

PAH considers the forecast capital costs for the remaining LOM as reasonable but in our opinion, the mine closure cost is inadequate and estimates an additional cost of US$1,000,000 for 2005. This has been included in our valuation. Final closure costs will not be known until the regional mining authority approves the mine closure plan.

San Juan de Nieva

PAH has reviewed the forecast capital costs for San Juan de Nieva and consider them reasonable and acceptable based on the condition of the plant and equipment, type of technology employed and plant capacity.

2.8 Risks and synergies

Mining, and in particular underground mining, is done in a working environment where not all events are predictable. An effective management team can identify the known risks and take appropriate measures to manage and mitigate these risks. PAH is not aware of any extraordinary risks at the Reocín mine or San Juan de Nieva that would preclude their continued operation through the LOM for Reocín or for the foreseeable future at San Juan de Nieva zinc smelting/refining operation, based on the assumption that sufficient zinc concentrates can be sourced as feed stock. With the closure of Reocín mine in mid-2003, the continued operation of the Hinojedo roaster will need to be secured from external sources. To date, no definitive plan has been formulated for this transition. Although PAH has not identified any material issues regarding environmental practices and compliance, we have set forth areas of concern in the CPR.

The most critical risks associated with the San Juan de Nieva operations are associated with concentrate supply, acid sales and power costs. Asturiana currently has approximately 80% of its concentrate requirements covered under supply contracts until 2004. However, all supply contracts include cancellation clauses if conditions such as low zinc prices force closure of the supplying mine. The plant configuration allows the plant to operate as three separate units if adequate supply cannot be secured. By shutting down one unit, the plant can operate at reduced capacities without significantly affecting unit production costs.

PAH reviewed the five largest zinc concentrate contracts currently in force. Each contract includes an annual base tonnage the vendor agrees to supply over the contract period. Asturiana typically pays for 85% of the zinc content in the concentrate and 65% of the silver where applicable. Metal payments have a typical minimum deduction of 8% and 3.5 ounces of silver in addition to the 65% of silver content. Treatment charges vary between contracts ranging from US$158.00 to US$191.50, (typically US$180 to US$190) with

adjustments for changing zinc market prices. In addition to treatment charges, the contracts include penalties for iron, silica, mercury and other deleterious substances when received at concentrations exceeding a contract-specified threshold concentration.

Asturiana has been successful in selling the sulphuric acid generated as a by-product from the roasting operation at a profit, even at the expanded plant production rate. Failure of the acid market would reduce the overall income of the operation and could force Asturiana to reduce the zinc production to levels where acid production can be cost effectively managed.

Power represents approximately 50% of the operating costs for the plant. Asturiana currently enjoys among the lowest power cost for zinc refineries world-wide. The current power contract rate is reviewed annually, but has remained relatively constant for several years. The power contract has no clauses limiting rate increases.

There exist excellent synergies between the Asturiana assets. The zinc concentrate from Reocín is treatable at both Hinojedo and San Juan de Nieva. The calcine produced at Hinojedo is treatable at San Juan de Nieva for the production of marketable zinc products.

2.9 Sales and marketing

Zinc products from San Juan de Nieva are certified by the Asociacíon Espanola de Normalizacion (AENOR), the Spanish Association of Standards, and its German counterpart, DQS, under standards UN-EN-IO-9002 for its product qualities. Asturiana's zinc ingots meet LME standards for Special High Grade (SHG) zinc. Other specification standards include:

- UNE-EN 1179 - designation (Z1 99.995);
- ISO 752-81 - designation (Zn 99.995);
- ASTM B6-87 - designation (SHG).

In addition to SHG zinc, San Juan de Nieva produces numerous zinc alloys, which meet various UNE-EN, ISO and ASTM standards. The Asturiana zinc products are sold into both the domestic and foreign markets.

Sulphuric acid at a minimum grade of 98.5% H_2SO_4 is produced at San Juan de Nieva for both domestic (40%) and foreign (60%) markets. This product meets all specifications for sale into the phosphate, chemical and textile, paper and petrochemical industries.

2.10 Valuations

2.10.1 Methodologies and assumptions

PAH has valued the Proved Reserves at Reocín based on the cash flow for the remaining LOM and the San Juan de Nieva smelter based on cash flows for 18 years. The production and cost inputs into the cash flow are based on the various technical and cost data previously presented and opined on by PAH in the body of this report. The only variance to Asturiana's cash flow was the inclusion of an additional US$1,000,000 for closure costs at the Reocín mine. The cash flow was prepared based on the following:

- stand-alone project basis;
- post-tax determination of the NPV;
- plant and equipment has not been valued separately and is considered an integral component in the generation of cash flows;
- nominal cash flow (100% equity);
- cash flows are discounted on a mid-year basis; and
- the price assumptions and treatment charges are based on independent forecasts provided by the Commodity Research Unit.

Table 2.5 – Base case forecast prices

Nominal prices		2002	2003	2004
Zinc[1]	US$/t	841	1,010	1,116
Sulphuric acid[2]	US$/t	19.7	17.5	18.0
US$/€		0.91	0.92	0.92

[1]Forecast LME zinc price.

[2]Based on a weighted average of export and domestic prices.

2.10.2 Valuation results

PAH has determined that the net present value ("NPV") of the Reocín Mine and San Juan de Nieva smelter as of 31 December 2001 at a 9.5% nominal discount rate is US$857 million. The nominal discount rate affects the NPV as shown on **Table 2-6.**

Table 2-6 – Combined Reocín and San Juan de Nieva valuation

Nominal discount rate (%)	Net Present Value[1] (US$ millions)
+2%	749
+1%	800
9.5%	857
-1%	921
-2%	991

(1) Valuation is on a 100% basis. Minority shareholders currently hold less than 7% of Asturiana.

Table 2-7 – Base case valuation of zinc operations

Base case valuation	Reocín mine (US$ millions)	San Juan de Nieva (US$ millions)	Total zinc operations (US$ millions)
	6	851	857

2.10.3 Sensitivity analysis

PAH has performed a sensitivity analysis on the following principal assumptions in the cash flow which demonstrate the highest degree of impact on the project's NPV:

- zinc price; and
- operating costs.

PAH's sensitivity analysis was performed at minus 10% for zinc prices and plus 10% for operating costs. **Table 2-8** summarises the results of the sensitivity analysis.

Table 2-8 – Reocín and San Juan de Nieva

	Base case total value (US$ millions)	Zinc price (-10%) (US$ millions)	Operating costs (+10%) (US$ millions)
NPV Valuation	857	504	570

2.11 Conclusions

2.11.1 Reocín mine

PAH concludes the following for the Reocín mine:

- the geological understanding of the remaining reserves is of a sufficient level to support the open pit and underground mine plans to the mine's closure in mid-2003;
- the deposit information is of a sufficient level to categorise the remaining reserves in the Proved category in accordance with the JORC Code;
- the production plans for the mines (underground and open pit) and concentrator accurately reflect the forecast production rates, recoveries and concentrate qualities for the remaining LOM;
- the mining and concentrating equipment are of sufficient capacity and technology for the effective extraction and processing of ores to produce marketable lead and zinc concentrates;
- PAH considers the forecast capital costs for the remaining LOM as reasonable but in our opinion, the mine closure cost is inadequate and estimates an additional cost of US$1,000,000 for 2005. This has been included in our valuation;
- production forecasts, capital and operating costs used in the pro forma cash flow model for reserve valuation appropriately reflect the forecast production levels;
- the management and technical staff at the mine have extensive experience and the required level of expertise in the performance of their respective work areas;
- at this time, the mine has no known environmental violations or pending legal actions associated with environmental liabilities;
- the facility is operating within all known operating permits; and
- key risks identified by PAH are understood by Asturiana's management.

2.11.2 San Juan de Nieva

PAH concludes the following for San Juan de Nieva:

- the production plans accurately reflect the forecast production rates, extraction rates and concentrate feed stocks;
- the smelting/refining equipment are of sufficient capacity and technology for the effective extraction and processing of zinc concentrates to produce marketable zinc, sulphuric acid and germanium oxide products;
- PAH has reviewed the forecast operating costs and consider them reasonable and acceptable for San Juan de Nieva based on the condition of the plant and equipment, type of technologies employed and plant capacity;
- the management and technical staff have extensive experience and required level of expertise in the performance of their respective work areas;
- environmental issues have been identified or are under study;
- at this time, the San Juan de Nieva plant has no known environmental violations or pending legal actions associated with environmental liabilities;
- the facility is operating within all known operating permits; and
- key risks identified by PAH are understood by Asturiana's management.

3. Summary of mining operations

3.1 Geological characteristics

The Reocín mine is located on the south-east flank of the north-east by south-west trending Santillana syncline, which consists of Triassic and Cretaceous age rocks of deltaic to marine origin, overlying a folded and fractured Paleozoic basement. The zinc-lead mineralisation is hosted in a series of limestone beds that have been completely dolomitised. Regional tectonics has caused some minor folding and faulting within the area. Mineralisation occurs in the dolomites over an area approximately 3,500 metres long by 800 metres wide. The thickness of the mineralisation varies between 1.5 metres and 6 metres. The footwall contact of the mineralisation is very even with a dip of an almost constant 23 degrees, although, the hanging wall contact is very irregular. Primary mineralisation consists of banded sphalerite and galena, with minor marcasite. The lead to zinc ratio is typically around 1:7.5. The mineralisation outcrops to the south-east, where surface weathering has resulted in the oxidation of the original sulphide minerals to calamine, smithsonite, hydrozincite, and hemimorphite. Initial mining was of the oxide materials, however, remaining resources/reserves are predominantly of sulphide mineralogy, with a minor component of oxide material in the open pit.

Two contrasting styles of mineralisation have been recognised in the Reocín mine, each separated by the Visera fault. **Figure 3-2** shows the general geologic relationships of the mineralised horizons. To the west of the fault, the mineralisation is relatively thin (2 to 6 metres), tabular and stratiform and is contained at the base of an 80-metre thick, massively bedded, dolomite unit. Mineralisation principally occurs in the Capa Sur horizon, immediately above the footwall marly limestone. Other, less well-developed horizons in the western section of the mine are the Capa Norte and Tercera Capa horizons, which occur in the hanging wall of the Capa Sur mineralisation. The Visera horizon is developed in the vicinity of the Visera fault between the Barrendera and the Capa Sur ore bodies and represents the merging of the Capa Sur and Capa Norte horizons into a single, mineralised unit. Mining in these areas has been by underground methods.

To the east of the Visera fault the mineralisation is composed of an assemblage of lenticular mineralised units of 45 to 60 metres thick within a thick sequence (200 to 240 metres) of bedded dolomites. Mineralisation in this area is referred to as the Barrendera zone. Mining in this area has been by a combination of open pit and underground methods.

3.2 Maps and plans

Maps and plans for the Reocín mine are presented in **Figures 2-2, 3-1, 3-2, 3-3** and **3-4.**

3.3 Resource and reserve statement

3.3.1 Estimates of volume, tonnage and grades

At a total mine production rate of 1 million tonnes per annum over the remaining mine life, the underground and open pit ore reserves at Reocín will be exhausted by about the middle of the year 2003. More than half of the underground mineable reserves are composed of pillars left from previous underground mining. The tonnage of remaining ore is divided between the open pit and the underground mines at about a 2:1 ratio. However, the contained zinc is almost evenly divided between the open pit and underground mines. Remaining reserves consist of sulphide mineralisation, with minor unrecoverable oxide zinc content. This oxide zinc content is subtracted so that only sulphide zinc content is included for the reserves.

Reserves are estimated by Asturiana through the application of a sulphide zinc Zn(S) resource cut-off grade. This cut-off grade is based on the mining (including the cost of necessary development to access the reserve), and treatment costs. The current cut-off grades are based on grades calculated from recent operating data.

The zinc price and recovery used to check the breakeven Zn(S) equivalent grades for the open pit and underground mines at Reocín in order to calculate the cutoff grade was US$909 per tonne and 95%, respectively:

Equating the revenues and costs in an algorithm to calculate the breakeven cut-off grade, results in cut-off grades 8.0% Zn(S) for the underground mine and 3.3% Zn(S) for the open pit.

Following the recommendations by RTZ Consultants in 1995, Asturiana adopted the reporting of resources and reserves at Reocín in accordance with the JORC Code.

Resource tonnes and grade for the underground mineralisation in the pillars in the central and western areas of the mine are based on chip channel samples. Grades are estimated from the sample data using weighted average grades, with tonnes estimated from the shape of the pillar. Resource tonnes and grade for the underground Viscera and Punta de Lanza zones are based on samples from drill holes and chip channel samples. Grades and tonnes are estimated from the sample data using a computerised block model and an inverse distance estimation method, with Datamine software. Dilutional effects, that occur as a result of the irregular hanging wall contact in conjunction with the minimum mining height of 5 metres required for backfill trucks, are included in the estimation based on the relative mineralised horizon thickness.

Resource tonnes and grade for the surface open pit mineralisation in the Barrendera zone are based on surface and underground drill holes, as well as in-pit grade control holes. Using the drill hole data, the open pit resource/reserves were estimated by Datamine International in December 1996. Open pit reserves were determined using a Whittle 4D optimisation program. The estimation also involved open pit optimisation, mine design and scheduling. Dilutional effects, which occur as a result of the equipment used on the 10-metre benches, are included in the reserve estimation.

The official reserve position, as of 31 December 2001, is shown in **Table 3-1.** The project mineral resources do not include any additional dilution factors. The resource is fully converted in the reserves, with the inclusion of additional dilution factors as discussed in a subsequent section. There are currently no resources at Reocín additional to the stated reserves. Resource and reserve estimates are only for sulphide mineralisations, with adjustments made during the estimation process to exclude the minor unrecoverable oxide zinc content.

Table 3-1 – Summary of reserves and resources

		Resources				Reserves			
Mine	**Zone**	**Category**	**Tonnes('000)**	**Pb(S)%**	**Zn(S)%**	**Category**	**Tonnes('000)**	**Pb(S)%**	**Zn(S)%**
Underground	Total	Measured	417	1.24	11.73	Proved	488	1.06	10.04
Opencut	Total	Measured	745	0.84	7.78	Proved	953	0.66	6.08
Reocín	**Total**	**Measured**	**1,162**	**0.98**	**9.20**	**Proved**	**1,441**	**0.80**	**7.42**

Note: Resources are effectively stated inclusive of reserves. Resources do not include any additional dilution factors. Reserves are the resources with additional mining dilution factors. No additional resources exist beyond those that are converted to reserves.

Based on the JORC Code guidelines the remaining resources are classified by Asturiana in the Measured Resource category, which upon conversion to reserves are classified by Asturiana in the Proved Reserve category. The mineral resource is inclusive of the reserves and is fully converted to the reserves, with the inclusion of additional dilution factors.

PAH believes that the tonnages and grades have been calculated correctly and reflect the application of prudent and standard engineering practices by the mine personnel.

Figure 3-4 shows the location of the remaining reserves in the open pit and underground mining areas.

Based on PAH's review of past performance of the operation and the reconciliation of the production with the reserve model being used for production planning, PAH believes that the reserves and production forecast being used for the remaining production life (through to June 2003) to be acceptable.

3.3.2 Expected recovery and dilution factors

Remaining reserve estimates were developed in a manner that accounts for mine recovery and dilutional factors for both the open pit and underground operations. Mine recovery for underground mining is considered to be 100% as a result of the planned extraction of all estimated ore mineralisation from the cut and fill method being used. Dilution factors are added to adjust for the additional waste rock taken with the ore, which is 14.4% for Visera ore, 19.3% for Pilares ore and 10.0% for Punta de Lanza ore.

Mine recovery for open pit mining is considered to be 100% as a result of the planned extraction of all estimated ore mineralisation inside of the engineered pit limit. A dilution factor is added to adjust for the additional waste rock taken with the ore, which is 28.0%.

Changes in mine recovery or dilution are not anticipated and should not influence the limited remaining life of mine operations. The mine is more sensitive to other factors such as metal price variability.

3.4 Long-term prospects

Further mineralisation found in the Reocín mine has zinc grades of less than 4% and/or are located in areas that are difficult to access. As a result, it is unlikely that this mineralisation will be mineable and they are not included in any current resource or reserve estimates.

The project areas have been extensively explored over the years. The Asturiana staff are of the opinion that the likelihood for further potentially mineable material is limited and as such the mine is planned for closure in 2003.

3.5 Mining and ore processing

Mining at Reocín includes both open pit and underground operations. Mine engineering is supported by a staff of geologists and mining engineers using industry recognised computerised mine planning software.

The concentrator for processing ores from the open pit and underground mine is located adjacent to the mines on the same site. The concentrator produces separate lead and zinc concentrates, which are shipped to the roasting plant at Hinojedo. Zinc concentrates are roasted to produce calcine which is refined at the San Juan de Nieva electrolytic plant. Lead concentrates are stock-piled and loaded for shipment to other smelters for processing and sale on the open market.

The remaining life of both the underground and open pit mines is less than 1.5 years. The two operations are being mined at rates that will result in near simultaneous exhaustion of both mining areas. Future productivity from both the open pit and underground operations will be at a level to meet the production requirements.

A comparison of the production from the underground operation for 1999, 2000 and 2001 (actual versus the plan average for the year) is shown in **Table 3-2**. There was a shortfall in grade from the underground production because of ground conditions but it was compensated for by increased production in the open pit.

Table 3-2 – Underground production

Category	Units	Actual 1999	Actual 2000	Actual 2001	Reocín plan 2001
Ore	Tonnes/month	42,387	39,016	39,055	38,983
Zinc assay	% Zn(S)[1]	10.83	10.70	10.17	10.94
Zinc assay	% Zn[2]	11.04	10.91	10.42	11.16
Lead assay	% Pb	1.23	1.21	1.19	1.14

(1) Reported as in sulphide.

(2) Reported as total zinc.

Because mine openings in the La Fragua section of the underground mine proved to be less stable than expected, production from this section was halted.

In an effort to make-up for the zinc loss resulting from the La Fragua underground problems, open pit operations were accelerated during 2001. As a result, the reserves were depleted faster than planned. Discussions with the mine staff at Reocín, however, indicated that the reserves in the open pit may have been somewhat understated by the Datamine program and the actual values may be higher. Whether the surplus will be sufficient to replace all of the La Fragua losses will not be known until late in the mine life. The increase in ore mined from the pit resulted in lower than expected grades. The mine staff commented that dilution was somewhat higher than expected, probably due to the accelerated mining rate.

A comparison of the production from the open pit operation for 1999, 2000 and 2001 (actual versus the plan average for the year) is shown in **Table 3-3**.

Table 3-3 – Open pit production

Category	Units	Actual 1999	Actual 2000	Actual 2001	Reocín plan 2001
Ore	Tonnes/month	54,242	50,474	56,945	45,183
Zinc assay	% Zn	6.24	6.55	6.50	6.85
Lead assay	% Pb	1.02	0.97	0.89	0.99

Of the remaining reserves, approximately 63% will be from the open pit mine and the remainder from the underground. PAH has reviewed the Reocín mine plan, production schedule, capacities, recoveries and concentrate grades and found them to be achievable for the remaining ore reserves.

4. Summary of smelting/refining operations

Asturiana owns and operates three zinc production assets located in northern Spain comprising the San Juan de Nieva zinc operation. These assets are:

- the Hinojedo roasting plant which, processes zinc concentrates from the Reocín mine to produce calcine. This is transported to the San Juan de Nieva zinc operation for processing;
- the San Juan de Nieva zinc smelter/refinery, which utilises conventional processing methods for the production of zinc ingots, zinc alloys, zinc for plating and zinc dust, as well as by-products of sulphuric acid, mercury and germanium oxide; and
- the Arnao manufacturing facility, which produces zinc oxide dust, rolled zinc products, lead anodes and zinc wire.

Hinojedo and Arnao are under the management and cost control of San Juan de Nieva.

4.1 Production schedule

The Hinojedo roasting plant has an installed daily capacity to process 200 tonnes of zinc concentrate from Reocín for the production of 165 tonnes of calcine and 105 tonnes of liquid sulphur dioxide. There is no loss of zinc at Hinojedo. Reocín is currently the only source of zinc concentrates to the Hinojedo roasting plant. After closure of Reocín mine in mid-2003, the continued operation of the Hinojedo roaster will be from external sources trucked to Hinojedo and off-loaded at Hinojedo or at the nearby port of Santander. To date, no definitive plan has been formulated for this transition. The Hinojedo roaster plant does not have any mercury removal system due to the low mercury level in the Reocín zinc concentrates. After Reocín's closure, zinc concentrates processed through Hinojedo would need to have low mercury concentrations to ensure the final liquid sulphur dioxide product meets market specifications.

The San Juan de Nieva zinc smelting/refining operation has a production capacity of 460,000 tonnes of zinc per annum, of which 440,000 tonnes are saleable. A major expansion project was completed at San Juan de Nieva in August 2001 increasing its annual capacity from 320,000 tonnes to the 440,000 tonnes per annum of saleable zinc. The difference of 20,000 tonnes between production and saleable represents the zinc that is recycled into the plant's processing circuits. By-product capacity at San Juan de Nieva is 650,000 tonnes per annum of sulphuric acid produced from the roaster off-gases and 5,000 kilogrammes of germanium oxide. The current zinc recovery rate at San Juan de Nieva is approximately 96% to 96.5%. PAH is of the opinion that the forecast zinc recovery of 96.5% is achievable at San Juan de Nieva once the commissioning is complete. The 96.5% zinc recovery was used in the production forecasts for valuation in the pro forma cash flow analysis.

Following the expansion of the San Juan de Nieva plant's design production capacity, approximately 850,000 tonnes of zinc concentrate per year are required as feedstock to the electrolytic zinc plant. In 2001, approximately 702,000 tonnes of zinc concentrate was used as feed stock by the electrolytic zinc plant, of which approximately 130,000 tonnes was acquired from the Reocin mine. Currently, concentrates are either sourced from Reocín or purchased under contracts at an average concentrate grade of 54% zinc. With the closure of Reocín in mid-2003, all concentrates will be purchased under contracts. Typically, San Juan de Nieva receives zinc concentrates from more than 20 sources, of which five to seven sources represent about 70% of its total requirements. The largest single source is the Red Dog mine in Alaska. San Juan de Nieva has contracted for about 80% of its zinc concentrate requirements until 2004. PAH's review of Asturiana's contract terms for zinc concentrates indicate that they conform to standard industry terms for zinc concentrates.

4.2 Plant and equipment

4.2.1 Hinojedo

Facilities at Hinojedo include:

- roasting of zinc concentrates;
- production of liquid sulphur dioxide;
- storage of lead concentrates from the Reocín mine; and
- port facility for loadout of the Reocín lead concentrates.

The daily output at Hinojedo is approximately 165 tonnes of calcine and 105 tonnes of liquid sulphur dioxide (of which 99.95% was SO_2).

Zinc concentrates from the Reocín mine are received and stored in the roaster building. The concentrates are loaded onto a conveyor belt for feeding the roaster. The roasting process produces zinc oxide, termed calcine and sulphur dioxide-bearing gases. The roasting of the zinc concentrate is done in a flash roasting furnace at temperatures of some 1,000°C. Approximately 200 tonnes of zinc concentrates are treated daily producing gases from 26,000 to 28,000 cubic meters per hour. The flash roaster has four beds (two for drying and two for roasting) and is 26 feet 3 inches in diameter (internal). The roaster off-gases containing sulphur dioxide are passed through the waste heat boiler, wet electrofilter, scrubber and dry electrofilter before being sent to the liquid sulphur dioxide plant. The calcine is sent to the electrolytic zinc plant at San Juan de Nieva for processing.

The sulphur dioxide gases are concentrated through the elimination of oxygen and nitrogen. The process, which is performed in an absorption tower, is based on the selective absorption of sulphur dioxide through the use of dimethylaniline ("DMA") with the remainder of the gases are released into the atmosphere. The sulphur dioxide and DMA are then separated in a second tower through heat treatment. The liquid sulphur dioxide is dried using liquified acid and a bank of compressors and condensers prior to its storage for shipment to market. Storage capacity at Hinojedo is approximately 1,000 tonnes of liquid sulphur dioxide in 11 tanks. The liquid sulphur dioxide is sold as a by-product, primarily to the local wood pulp industry.

4.2.2 San Juan de Nieva

The San Juan de Nieva zinc smelting/refining plant is comprised of the following five major operating areas:

- concentrate receiving and storage;
- roasting and sulphuric acid plant;
- leaching and purification;
- electrowinning; and
- casting.

Concentrates are received by road or via the San Juan de Nieva wharf at the nearby port of Avilés. The concentrates from the wharf are conveyed to the San Juan de Nieva plant site. The calcine produced at Hinojedo is also sent to the San Juan de Nieva plant. The plant has a storage capacity for over 40,000 tonnes of concentrate.

The zinc concentrates are fed to the roasting circuit. There are four roaster lines, all fluid bed design, combining to treat 850,000 tonnes of the zinc concentrate per year. The roaster off-gases are treated in four Lurgi double-contact acid plants. Acid production is dependent on the blend of concentrates, but is currently averaging about 750,000 tonnes of sulphuric acid (98.5%) per year. Mercury is scrubbed from the roaster off-gases before entering the acid plant using Asturiana patented technology. Mercury is recovered from the gas scrubbers in liquid form and sold on the open market.

The calcine from the roasters is treated in a two-stage leaching system comprising of neutral and hot acid sections. Spent electrolyte from the electrowinning plant is used for converting the zinc oxide (ZnO) to zinc sulphate ($ZnSO_4$). The neutral leach discharge is thickened and the thickener overflow is sent to the purification circuit. Germanium oxide is produced from the hot acid leach stream.

Purification of the zinc sulphate solution from neutral leaching is done in three stages for the removal of copper, cadmium, nickel and cobalt. The purified solution is cooled in cooling towers for gypsum removal prior to electrowinning.

Electrowinning is done in four tank houses: two with a capacity of 100,000 tonnes of zinc per year using standard size cathodes and semi-automatic stripping and one with a capacity of 120,000 tonnes of zinc per year using large cathodes and automated stripping. Tank houses "A" and "B" are of the old cascade design and "C" is of the new, patented Asturiana design. A new, modern electrolytic tank house, termed "D", was added in the recent expansion at stated design capacity of 120,000 tonnes per year. Electrolyte impurities are well controlled and the quality of the zinc deposition meets LME specifications for SHG 100% of the time. Cathodes are sent to the casting plant for SHG ingots, die cast alloys and galvanising zinc production.

The casting plant consists of seven induction furnaces each capable of producing any mix of products from SHG ingots to die cast alloys and each can cast various sizes and shapes. The technology is standard and state-of-the-art, although four of the furnaces are smaller than other modern installations.

There are three major infrastructure facilities associated with San Juan de Nieva: (1) port; (2) power; and (3) water. Zinc concentrates from foreign sources are received at the nearby Avilés port from which they are conveyed to the site. Zinc products and sulphuric acid are shipped from the Aviles port to foreign consumers. San Juan de Nieva purchases its power from the regional Utility Hidroeléctrica del Cantábrico at a special industrial rate. The Government reviews the rate on a periodic basis. The contract includes no limits on power cost changes. Asturiana is currently negotiating for multi-year contracts. Power costs over the past 15 years have been relatively stable. The electric grid is reliable with only two power outages in the last 30 years. San Juan de Nieva has a concession to use the full capacity of the Ferrería River for the purpose of industrial water for operations. This water supply is supplemented by water purchased from Consorcio de Aguas de Asturias (CADASA), a local water supplier.

4.2.3 Arnao

The Arnao manufacturing facility is located approximately 4 kilometres west of the San Juan de Nieva plant adjacent to the Cantabria Sea. Arnao was purchased by Asturiana in 1980. Arnao produces the following products:

- zinc oxide dust;
- rolled zinc;
- lead anodes; and
- zinc wire.

Zinc oxide dust is produced in three distillation columns, which are fed with zinc ingot and skimmings from the melting processes at the San Juan de Nieva plant. They are also fed with bottom or surface galvanisation drosses, which are previously melted in a special oven so that a large part of aluminium and iron may be separated off. The zinc vapour from the columns is taken to condensers for the production of zinc oxide dust due by an oxidation chamber and then passed through a sleeve filter, where the zinc oxide is collected. The zinc oxide production capacity of the three columns is 15,000 tonnes per year (capacity 24,000 tonnes per year).

Zinc ingots are initially rolled to a thickness of 10 millimetres in a roughing mill. The roughed zinc is then reduced to a thickness of 0.25 millimetres in a finishing mill and subsequently cut to the customer's requirements. The capacity of the rolling facility is some 9,000 tonnes per year.

Lead anodes are produced at Arnao for the electrolytic process tanks at San Juan de Nieva.

Zinc wire is produced at Arnao in the manufacture of zinc plating. A continuous casting furnace feeds a rough wiredrawing mill followed by two finishing mills. The finishing mills are capable of producing 2 millimetre diameter wire. The production capacity of zinc wire is approximately 500 tonnes per year depending on consumer demand.

4.3 Environmental management/waste disposal

4.3.1 Hinojedo

The Hinojedo plant is a well-established industrial facility with buildings dating back to 1912 and operations reported as early as 1929. Prior to the establishment of the current operations, the plant was rehabilitated during the period 1995 to 1997. Development of the current operation required extensive site demolition and clean-up. Current environmental monitoring at the site is limited. Based on PAH's primary review of the site the following primary emissions and wastes produced at the roasting plant have been identified:

- air emissions from the roasting/SO_2 plant facilities;
- fugitive dust from lead concentrate storage and calcine production;
- storm water run-off from the site with potential metals and other contaminates; and
- lead concentrate spills into river at the ship loadout area.

The Hinojedo plant receives all raw materials from the Reocín mine. With the closure of the mine in 2003, future operation of this plant is uncertain and may require modification or closure and site rehabilitation. No cost estimates have been developed for these scenarios.

4.3.2 San Juan de Nieva

The San Juan de Nieva smelting/refining process includes the intake and storage of concentrate, roasting of concentrates and treatment of gases (acid plant) to produce sulphuric acid, together with leaching, purification, electrowinning, melting and casting of zinc. The process produces the following primary emissions, wastes streams and discharges:

- air emissions from the roasting/acid plant facilities;
- fugitive dust from concentrates and zinc dust production;
- sludge from the water treatment of process and stormwater;
- jarosite wastes from the leaching process;
- impurities from the purification circuit such as copper and cadmium residue; and
- discharge of cooling water to surface water and estuary.

The principal focus of Asturiana's atmospheric emissions management programme is the roasters, acid plant and the zinc dust production plant. Asturiana continuously monitors SO_2 air emissions from Roasters 1, 2, 3, and 4 and, in addition, monitors four air quality stations outside the smelter site. Particulate emissions from the zinc dust furnace and the zinc fusion furnaces 4 and 6 are also monitored. Monthly monitoring results for all of the above emissions are reported to environmental authorities. Asturiana reports that air emissions from these sources meet the requirements of Spanish regulations. The Consejería de Fomento (a local environmental authority) monitors air quality at four sites around the port of Avilés; the closest to the smelter is the Matadero station. Asturiana reports that air quality limits are occasionally exceeded at the smelter. They also report that there have been claims against the company by individuals for exceeding these limits, but the courts have found in favour of Asturiana, and that the Consejería de Medio Ambiente (regional environmental authority) audits/inspects the site two to three times per year and that no issues are currently outstanding.

Residue from the leaching circuit, sludge from the water treatment plant and fluorine waste from washing of roaster gas are managed in the jarosite (iron sulphate) ponds. Jarosite and acid insoluble compounds (lead, calcium and silica) represent the final residue from the leaching circuit. The residue is allowed to settle in thickeners, filtered and then pumped to the jarosite ponds for disposal. Site storm water and excess process water is collected and treated at the water treatment plant; sludge from the plant is disposed of in the jarosite ponds. Asturiana has constructed four ponds, two are closed and reclaimed (1 and 2), one is currently available to accept jarosite waste (Pond 3) and one has been constructed as a temporary jarofix storage (Pond 4). Pond 1 was closed in 1984 and it is unlined and covered. Pond 2 has a geosynthetic liner and is closed and covered with a geotextile and a geosynthetic.

No groundwater monitoring wells are currently installed around Ponds 1 and 2. As a result, impact on groundwater cannot be assessed. Asturiana reports that a monitoring network of some 25 wells existed until 5 years ago. Monitoring for pH, conductivity, zinc and heavy metals showed no groundwater contamination. The wells in this monitoring network were destroyed when the government revegetated the area where the wells were located. Pond 3 is lined with a geosynthetic liner and has some 350,000 cubic metres of storage capacity remaining. Five monitoring wells are associated with Pond 3. As part of the plant upgrade, a jarofix plant was installed. In the jarofix process, the jarosite is mixed with lime and Portland cement, producing a stable solid product. Metals within the jarofix are rendered non-leachable by this process. Asturiana has developed a jarofix disposal site at the Estrellin Quarry, located approximately 8 kilometres from the plant by road. Treated jarofix is hauled to the site by covered, sealed truck. The site is lined, and includes groundwater monitoring wells and leachate collection, treatment and disposal. The facility has a design life of 23 years.

Impurities from the purification circuit such as cadmium residue are accumulated onsite then transported by COGERSA (waste hauler and manager) to a secure hazardous waste facility. COGERSA also handles waste oils and other hazardous waste from the site. Asturiana produces more than 10 tonnes of hazardous waste per year.

4.3.3 Arnao

Based on visits to the Arnao facilities, PAH's findings indicate that there are no environmental issues. PAH's review of the environmental permitting documentation provided indicates that the primary environmental permits and approvals are in place to continue the operation of these facilities. This facility operates under permits issued for San Juan de Nieva.

Based on PAH's primary review of the site, the following primary emissions and wastes produced at the site have been identified:

- air emissions from the zinc oxide furnaces;
- air emissions from the metals furnaces in the wire casting and anode casting areas;
- surface water run-off;
- cooling water discharge; and
- maintenance-related solid and hazardous wastes.

5. Special factors

PAH has not identified any special factors that may affect the viability of operations at the Reocín mine and San Juan de Nieva.

6. Conclusions

6.1 Reocín mine

PAH concludes the following for the Reocín mine:

- the geological understanding of the remaining reserves is of a sufficient level to support the open pit and underground mine plans to its closure in mid-2003;
- the deposit information is of a sufficient level to categorise the remaining reserves in the proven category in accordance with the JORC Code;
- the production plans for the mines (underground and open pit) and concentrator accurately reflect the forecast production rates, recoveries and concentrate qualities for the remaining LOM;
- the mining and concentrating equipment are of sufficient capacity and technology for the effective extraction and processing of ores to produce marketable lead and zinc concentrates;
- PAH considers the forecast capital costs for the remaining LOM as reasonable but in our opinion, the mine closure cost is inadequate and estimates an additional cost of US$1,000,000 for 2005. This has been included in our valuation;
- production forecasts, capital and operating costs used in the pro forma cash flow model for reserve valuation appropriately reflect the forecast production levels;
- the management and technical staff at the mine have extensive experience and the required level of expertise in the performance of their respective work areas;
- at this time, the mine has no known environmental violations or pending legal actions associated with environmental liabilities;
- the facility is operating within all known operating permits; and
- key risks identified by PAH are understood by Asturiana's mine site management.

6.2 San Juan de Nieva

PAH concludes the following for San Juan de Nieva:

- the production plans accurately reflect the forecast production rates, extraction rates and concentrate feed stocks;
- the smelting/refining equipment are of sufficient capacity and technology for the effective extraction and processing of zinc concentrates to produce marketable zinc, sulphuric acid and germanium oxide products;
- PAH has reviewed the forecast capital costs for San Juan de Nieva and considers them reasonable and acceptable based on the condition of the plant and equipment, type of technology employed and plant capacity;
- PAH has reviewed the forecast operating costs and considers them reasonable and acceptable for San Juan de Nieva based on the condition of the plant and equipment, type of technologies employed and plant capacity;
- the management and technical staff have extensive experience and required level of expertise in the performance of their respective work areas;
- environmental issues have been identified or are under study;
- at this time, the San Juan de Nieva plant has no known environmental violations or pending legal actions associated with environmental liabilities;
- the facility is operating within all known operating permits; and
- key risks identified by PAH are understood by Asturiana's site management.

6.3 Valuation

The Reocín mine and San Juan de Nieva operations are valued at US$857 million.

Stephen W. Thomas
Principal Mining Engineer and Director of Mining Services
For and on behalf of
Pincock, Allen & Holt

Annex A – Statement of capability and experience

Marshall A. Koval, P.G. - Principal Geologist and President of PAH - Bachelor of Science, Geology; Gemology Degree - Member of NWMA, SME, NMA

Mr. Koval, President of PAH, is a geologist with over 22 years experience in the mining and environmental industries. He served as Project Manager for the closure and reclamation of the Cannon Mine in Washington state, the development of a Sampling and Analysis plan for the Ite Bay tailings disposal area at Southern Peru Copper Corporation, an Environmental Audit of the Ilo, Peru Power Plant, and the development of the site-wide Environmental Compliance and Management Program (PAMA) for the entire Southern Peru Copper Corporation complex including two mines and concentrators, a smelter and copper refinery complex, a port and harbor facility and railway.

Alva L. Kuestermeyer - Principal Mineral Economist and Director of New York Operations - Master of Science, Mineral Economics; Bachelor of Science, Metallurgical Engineering – Member of Society for Mining, Metallurgy and Exploration

Mr. Kuestermeyer has over 27 years of operational and consulting experience in the minerals industry, specifically in mineral processing, extractive metallurgy, market analysis and project economics. Has worked on numerous consulting assignments for base and precious metal, uranium, and industrial mineral projects on a world-wide basis. Projects have included due diligence, mergers, acquisitions, valuations, project economics and market analysis. He has expertise in multi-client studies and cost modelling, market and mineral commodity studies and industry analysis for non-ferrous and precious metal ores, uranium and industrial minerals.

Stephen W. Thomas - Principal Mining Engineer and Director of Mining Services - Bachelor of Science, Mining Engineering - Graduate work in Business Administration - Member of AIME, MMSA, NWMA

Mr. Thomas has over 28 years experience in the minerals industry including senior positions in both engineering and production, at the operations and corporate levels. Responsibilities included preparation of preliminary property evaluations, due diligence evaluations for acquisition support, preparation of project prefeasibility and feasibility studies, project permitting and economic evaluation of projects. He has prepared project development plans for support of bank financing, supervised project engineering, managed construction projects and has managed operations. His experience covers base and precious metals, coal, and industrial minerals and he has participated in projects located worldwide.

Mark Madden, P.E. - Principal Geotechnical Engineer - Master of Science, Civil Engineering (Geotechnical); Bachelor of Science, Civil Engineering - Professional Engineer, States of Alaska and Wisconsin - Member of American Society of Civil Engineers

Mr. Madden has over 21 years of experience completing both geotechnical and environmental permitting projects for a variety of resource development and infrastructure projects. Mr. Madden has performed foundation designs for permafrost conditions, including analyses of heat transfer, frost jacking and secondary creep. He has performed geotechnical investigations and foundation designs for commercial and industrial structures, residential development and utility installation. For several projects, he has provided continuous on-site observation through critical foundation construction operations. He was project engineer for the Kubaka Gold Project in Magadan Oblast, Russia responsible for evaluation of geotechnical and environmental management issues for a bank due diligence review and completion monitoring. He reviewed environmental management issues including transport of all fuels, cyanide and other process chemicals to the site by winter road, onsite storage, handling and disposal of process reagents, camp solid waste disposal, fuel storage and handling, and explosives storage and handling.

Mark G. Stevens, C.P.G. - Principal Geologist - Master of Science, Geology; Bachelor of Science, Geology - Certified Professional Geologist; Registered Geologist in the State of Wyoming - Member of Society for Mining, Metallurgy and Exploration and Society of Economic Geologists

Mr. Stevens has expertise in the fields of geology and resource estimation. He has more than 21 years experience in the evaluation of base and precious metal deposits around the world, including due diligence reviews, reserve audits, technical evaluations, and prefeasibility/feasibility studies. His gold experience includes work on more than 100 mineral deposit studies. Representative gold projects include Rio Narcea, Spain; Florida Canyon, Nevada; Zortman-Landusky, Montana; Midas, Nevada; Bellavista, Costa Rica; Poderosa, Peru; Briggs, California; Mineral Ridge, Nevada; Goldstrike, Nevada; La Cienega, Mexico; Mezcala, Mexico; Relief Canyon, Nevada; and Ivanhoe, Nevada.

Bill Brooks - Metallurgical Engineer - Bachelor of Science, Metallurgical Engineering - Member of SME

Mr. Brooks has over 26 years experience in the minerals industry in operations management, engineering and project management, process engineering, metallurgical engineering, design, construction and operation of gold, copper, silver, nickel, cobalt, and zinc processing facilities and mines. He has implemented innovative solutions to production problems and has a strong financial background including P&L responsibility for numerous operating and engineering assignments.

Annex B – Scope of work/limitations and exclusions/materiality

Scope of work

PAH performed the following scope of work for the CPR:

- site visits and collection of data. Key members of the study team visited the Reocín mine and San Juan de Nieva zinc smelting/refining operations and were given presentations at the respective sites by senior site management. Respective team members inspected the mining and processing operations, zinc smelting/refining operations, infrastructure facilities and environmental management programs.
- technical review and reporting was undertaken by the study team for key elements of the CPR study including geology, resources and reserves, mining and processing operations, infrastructure facilities, capital and operating costs, production forecasts, extraction rates, sources of raw materials, markets, utilisations, plant and equipment and environmental issues.

The CPR covered Asturiana's Reocín mine and San Juan de Nieva zinc smelting/refining operation assets that are materially relevant to the production and cost schedules for Asturiana.

Limitations and exclusions

The CPR was based principally on information provided by Asturiana, either directly from the Reocín mine site, San Juan de Nieva zinc operations, other Asturiana offices, or from reports by other consultants or firms whose work was pertinent in the preparation of this CPR. The report is based on information made available to PAH before 11 January 2002.

The work undertaken for this CPR is a technical review of the information coupled with such site inspections of assets as PAH considered appropriate for the preparation of the CPR.

PAH has not endeavoured to forecast independently the metal prices used in the cash flow. The price assumptions and treatment charges are based on independent forecasts provided by the Commodity Research Unit.

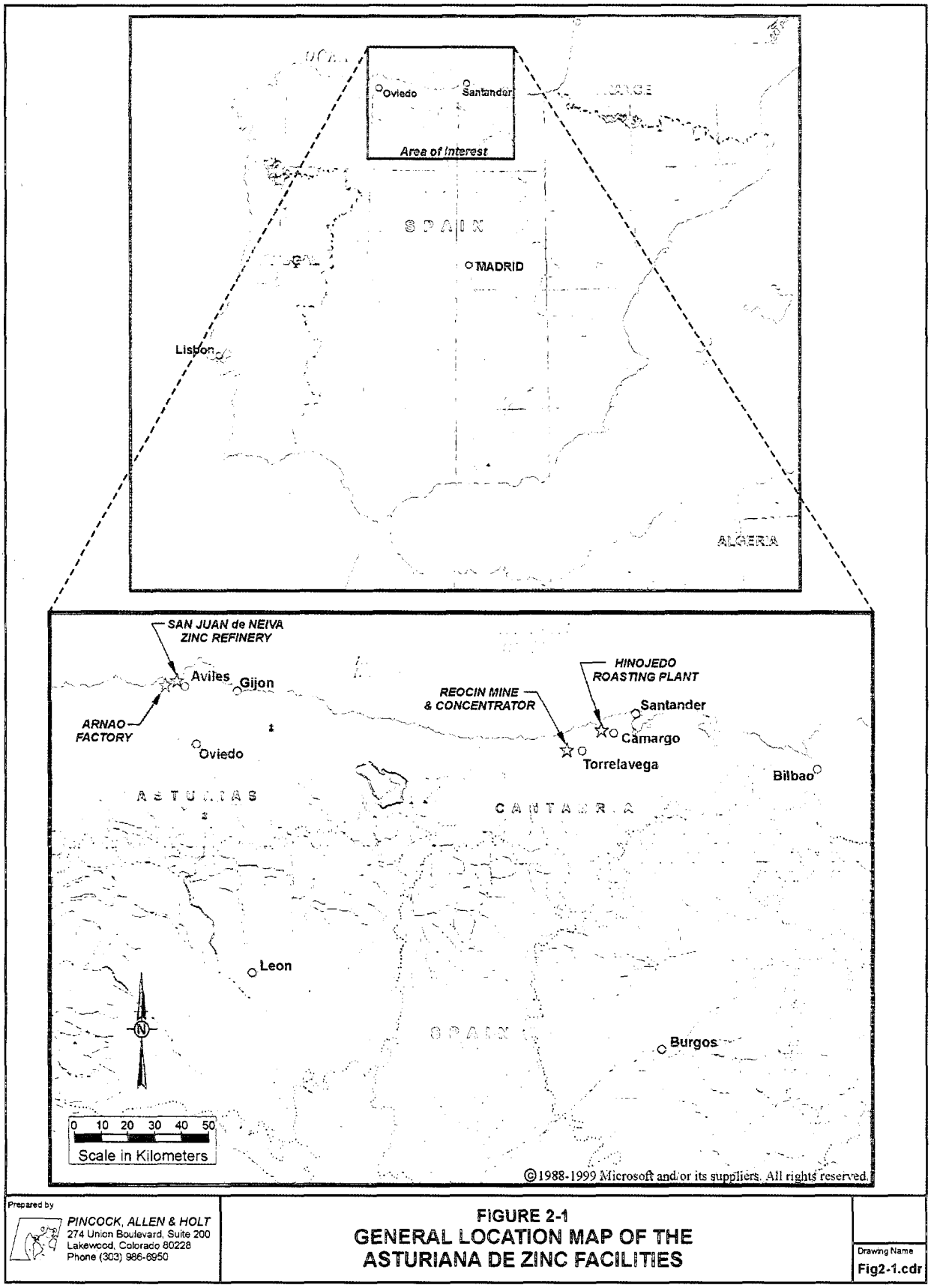
Asturiana provided the technical and cost data for the cash flow in the CPR. PAH reviewed the accuracy and consistency of the assumptions relevant to the production forecasts, capital and operating costs.

In PAH's opinion, the information provided by Asturiana was reasonable and there were no instances during the preparation of the CPR that suggested any significant errors, misrepresentations or omissions with respect to the information provided.

Materiality

The Reocín mine and San Juan de Nieva zinc smelting/refining assets were examined to identify any significant technical and operating risks. Where risks for the Reocín mine assets are likely to impact on the LOM forecast production, capital and operating costs by less than 10% they are not considered significant. Where risks for the San Juan de Nieva zinc operation assets are likely to impact on the forecast production, capital and operating costs by less than 10%, they are not considered significant. Any identified risks were reviewed to ensure adequate allowance is provided in Asturiana's forecasts. Any significant risks, which are not adequately addressed in the Asturiana forecasts, are considered to be "material".

Figure 2-1 – Location map for Asturiana assets



Prepared by
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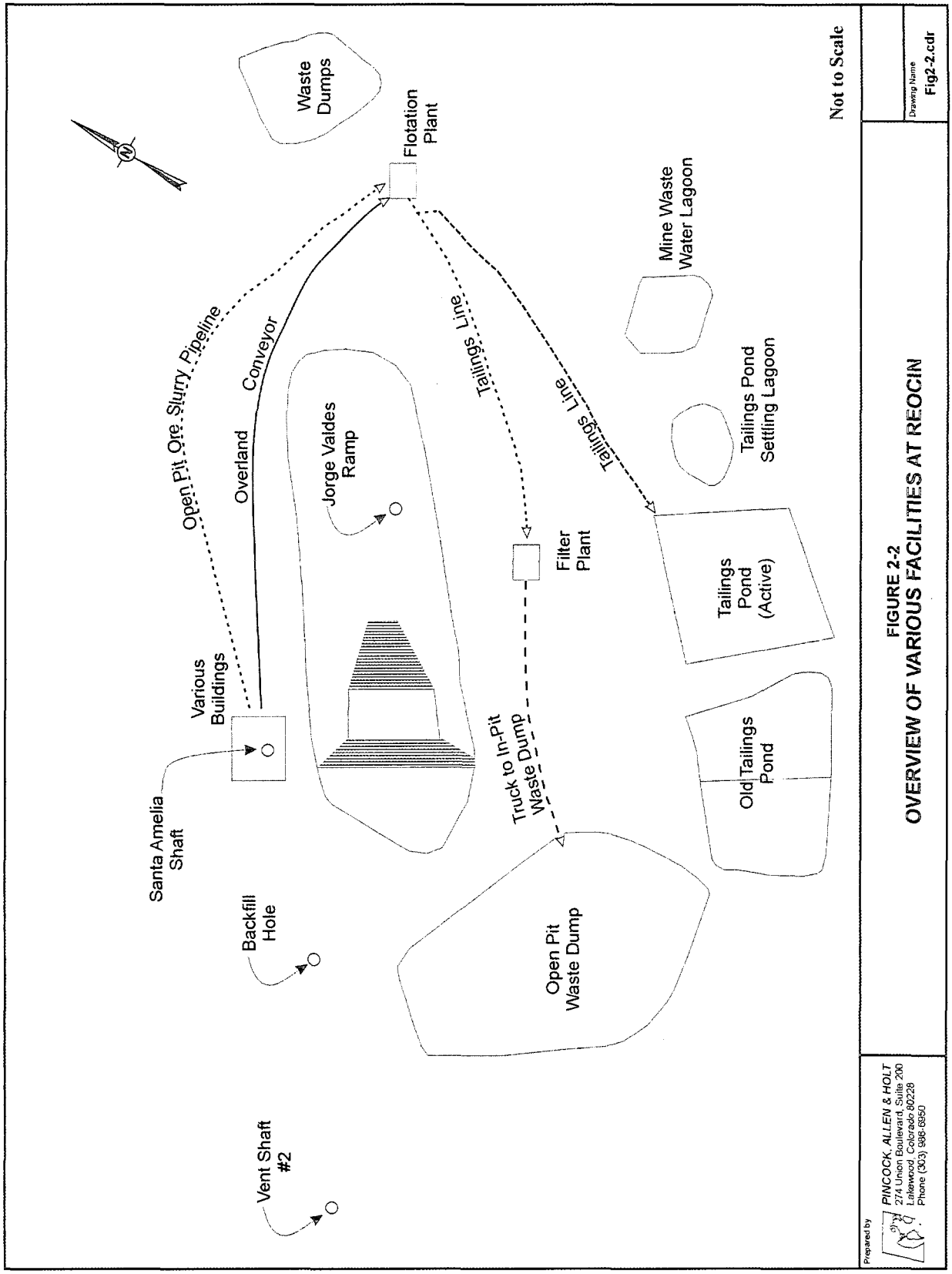
FIGURE 2-1
GENERAL LOCATION MAP OF THE ASTURIANA DE ZINC FACILITIES

Drawing Name
Fig2-1.cdr

Figure 2-2 – Reocín layout



Note: Not to scale

Figure 3-1 – Reocín mine concession locations

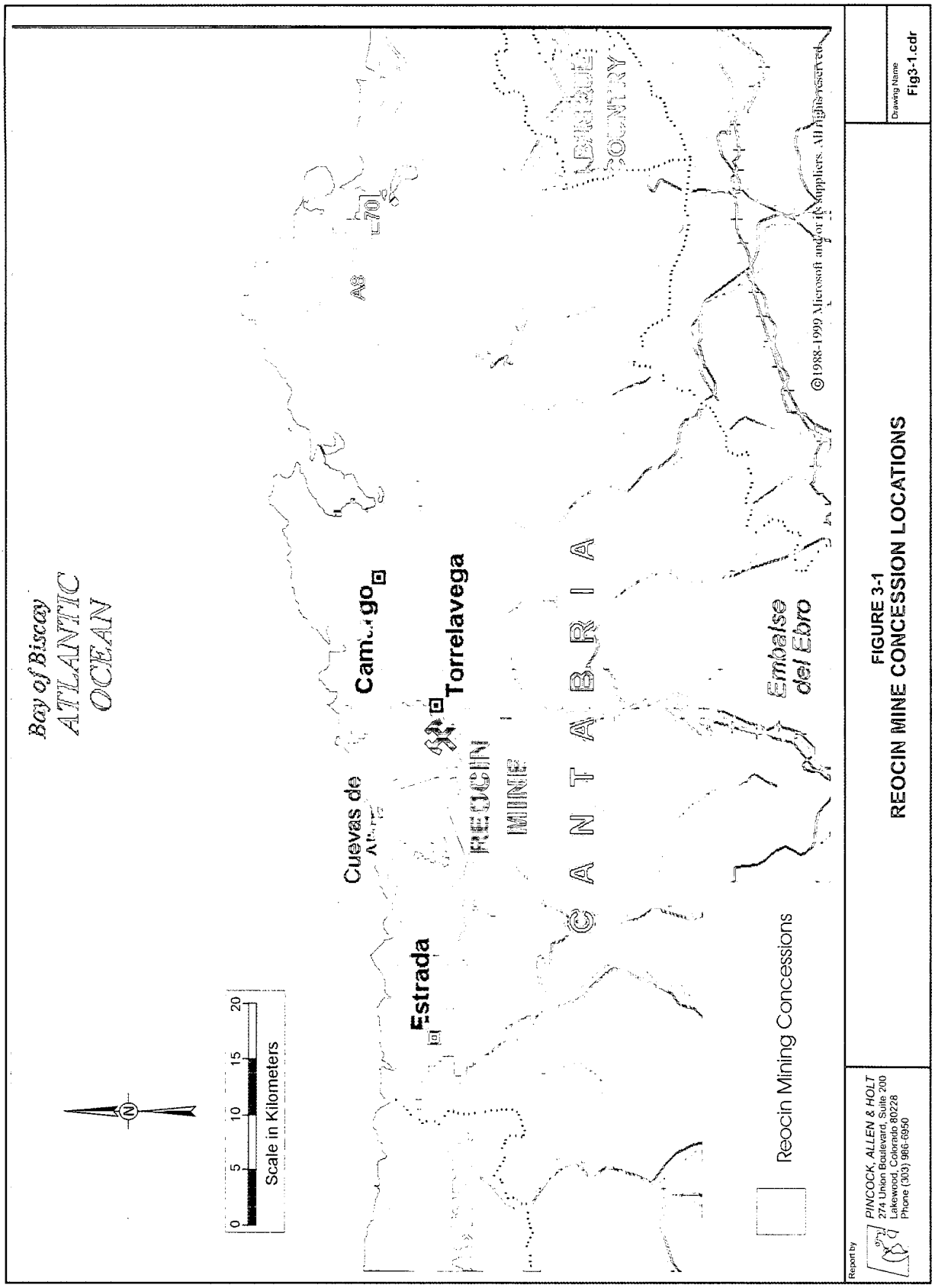


Figure 3-2 - General plan map of Reocín mine mineralisation

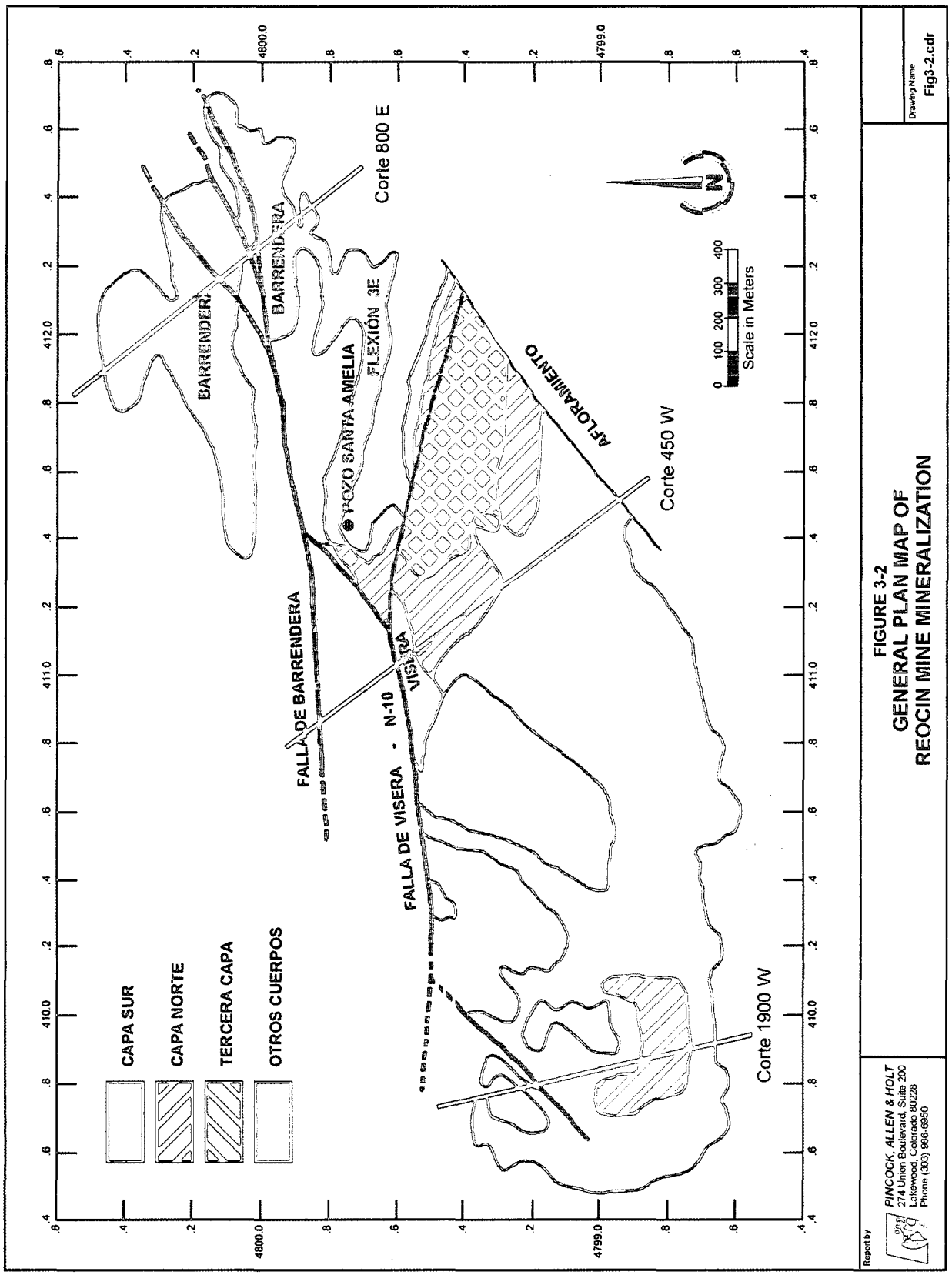


Figure 3-3 – Reocín mine drill hole locations

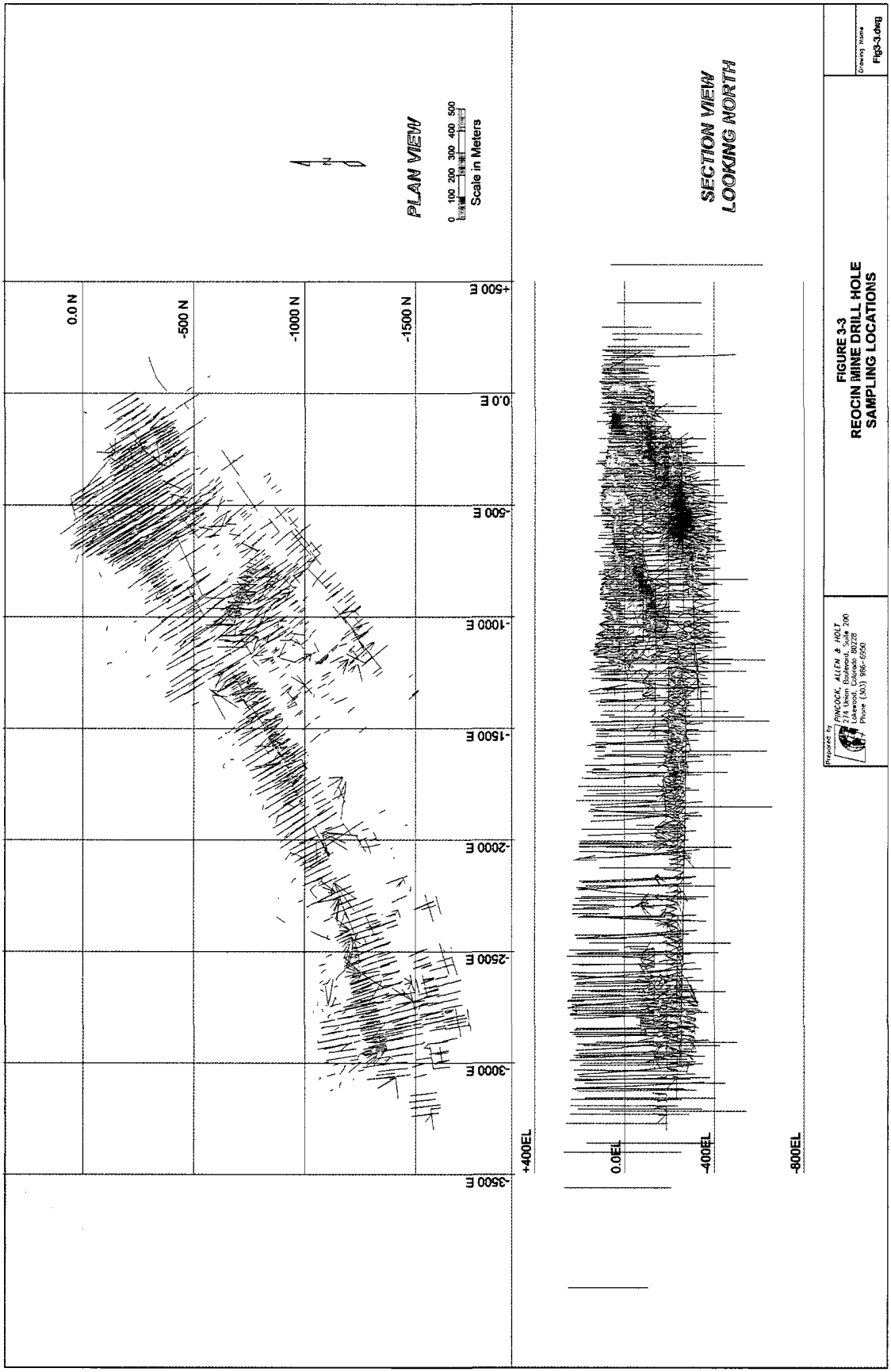
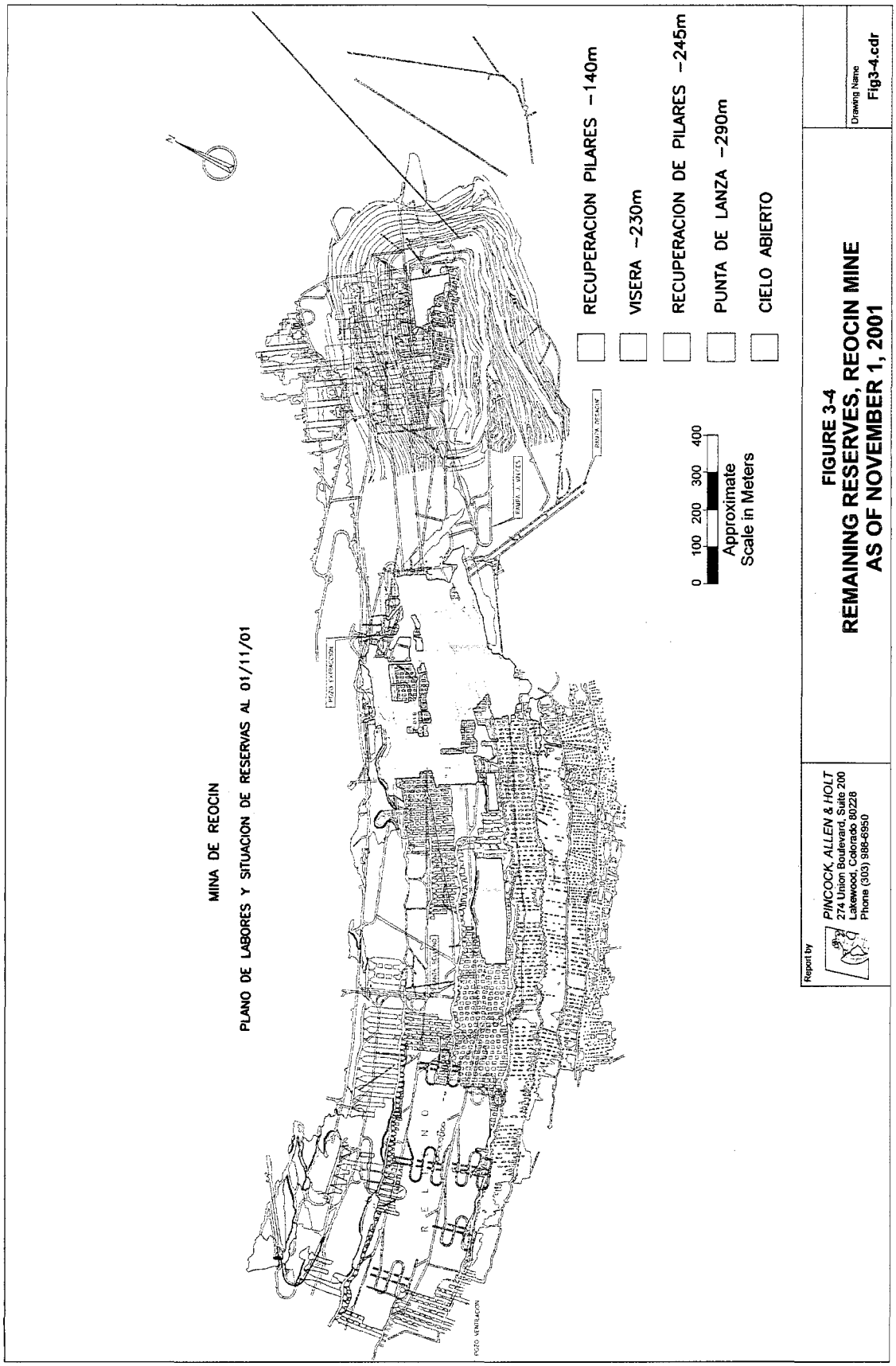


Figure 3-4 – Remaining reserve areas



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Competent person's report for the chrome and vanadium assets held by Xstrata South Africa

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International Mining Consultants

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20 March 2002

Dear Sirs

COMPETENT PERSON'S REPORT FOR THE CHROME AND VANADIUM ASSETS HELD BY XSTRATA SOUTH AFRICA

1. Introduction

1.1 Purpose of report

This report has been prepared by IMC Mackay & Schnellmann (IMC) for inclusion in listing particulars (the "Listing Particulars") to be published by Xstrata plc (the "Company") in connection with a global offer of ordinary shares in the Company (the "Global Offer") and the proposed admission of the ordinary shares of the Company to the Official List of the UK Listing Authority (the "UKLA") and the admission of such shares to trading on London Stock Exchange plc's market for listed securities.

IMC was instructed by the directors of the Company to prepare a Competent Person's Report for the South African chrome and vanadium assets of Xstrata South Africa (Pty) Limited ("Xstrata South Africa"). This report, which summarises the findings of IMC's review, has been prepared in order to satisfy the requirements of a Competent Person's Report as set out in Chapter 19 of the listing rules of the UKLA.

IMC has conducted its review in accordance with the requirements of Chapter 19 of the listing rules of the UKLA and, with respect to resources and reserves, the "Australasian Code for Reporting Mineral Resources and Reserves" (September 1999) published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia (the "JORC Code"). The JORC Code establishes the nature of evidence required to ensure compliance with the code. The review was conducted with regard to the JORC Code because it is internationally recognised. In this report, all resource and reserve estimates are reported in accordance with the JORC Code and have been substantiated by evidence obtained from IMC's site visits and observation. They are supported by details of drilling results, analyses and other evidence and take account of all relevant information supplied by Xstrata South Africa's management and the directors of the Company.

In accordance with Chapter 19 of the listing rules of the UKLA, only Proved and Probable Reserves have been valued. Other chrome and vanadium assets of Xstrata South Africa, which include extensive resources, have not been included in the valuation.

1.2 Capability and independence

This report was prepared on behalf of IMC by the signatory to this report. Details of the qualifications and experience of the consultants who carried out the work are in Annex A to this report.

IMC operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to clients. IMC has received, and will receive, professional fees for its preparation of this report. However, neither IMC nor any of its directors, staff or sub-consultants who contributed to this report have any interest in:

- the Company or Xstrata South Africa; or
- the mining assets reviewed; or
- the outcome of the Global Offer.

Drafts of this report were provided to Xstrata South Africa, but only for the purpose of confirming both the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

1.3 Scope of work/materiality/limitations and exclusions

IMC reviewed the assets in accordance with the scope of work and exclusions and limitations and on the basis of the materiality criteria set out in Annex B to this report.

IMC has independently assessed the chrome and vanadium assets of Xstrata South Africa by reviewing pertinent data, including resources, reserves, manpower requirements, environmental issues and the life-of-mine plans relating to productivity, production, operating costs, capital expenditures and revenues.

All opinions, findings and conclusions expressed in this report are those of IMC and its sub-consultants.

1.4 Inherent mining risks

Mining and, in particular, underground metalliferous mining, is carried out in an environment where not all events are predictable. Whilst an effective management team can, firstly, identify the known risks and secondly, take measures to manage and mitigate these risks, there is still the possibility of unexpected and unpredictable events occurring. It is therefore not possible to remove totally all risks or state with certainty that an event that may have a material impact on the operation of a mine, will not occur.

1.5 Glossary of terms

Words and expressions used in this report are defined in Part X of the Listing Particulars.

2. Overview

2.1 Description of assets

IMC reviewed the following assets (**Table 2-1**) whose locations are shown in **Figure 2.**

Table 2-1 – List of assets with locations

	Date of commencement of operations
Rustenburg (W. Bushveld)	
6 ferrochrome furnaces	Start ups in 1988, 1989, 1995
1 operating chrome mine and 1 process plant – Waterval	Planned 2002 quarter 2
2 operating chrome mines and 2 process plants – Kroondal	Acquired in 1987
1 underground mine at the planning stage – Townlands	Not determined
1 open pit silica quarrying operation, for supplying smelter flux – Rietvlei	Acquired 1996
Wonderkop/Brits (W. Bushveld)	
6 ferrochrome furnaces, including two in Joint Venture with Samancor	Start ups in 1988, 1989, 1995, 2001
Wonderkop underground mine and process plant	1999
Lydenburg (E.Bushveld)	
4 ferrochrome furnaces	1977, acquired in 1998
1 underground mine and process plant – Thorncliffe	1998
Brits (Rhovan, W. Bushveld)	
1 opencast vanadium mine and plant	1990
Kennedy's Vale (Vantech, E. Bushveld)	
1 opencast vanadium mine and plant	Acquired 1992
Various undeveloped vanadium deposits	

2.2 Summary of geology

2.2.1 Chrome

The chromitite exploited by Xstrata South Africa in the Waterval, Kroondal, Wonderkop, Townlands and Thorncliffe properties occurs as reefs within the Bushveld Igneous Complex, a layered suite of ultrabasic rocks. The principal reefs are identified as LG6 and LG6a in the western Bushveld mines and as LG6 in the Thorncliffe mine. The reefs are laterally continuous in both grade and thickness: the grade is in the region of 38% to 42% Cr_2O_3, while the thickness of the combined LG6 and LG6a reefs varies from 1.7 metres to over 2 metres.

Chromitite is an almost monomineralic rock consisting mainly of chrome spinel (chromite) with accessory pyroxene, anorthite and other minerals, occurring as a series of regular layers or reefs within the ultramafic igneous complex. Waste rocks below and above the LG6/LG6a chromitite reefs are (ortho)pyroxenite, locally with basic pegmatoids and there are also cross-cutting dolerite and syenite dykes. None of these are of any particular economic significance.

There are three principal groups of chromitite reefs, known as the lower, middle, and upper groups and the individual reefs within each group are numbered from lowest to highest. Not all are of economic significance. The most important reef exploited by Xstrata South Africa in the western mines is LG6: the sixth reef in the Lower Group. This reef is split into two parts, separated by a pyroxenite waste parting (the 'middling') and is commonly referred to as LG6/LG6a. It is underlain and overlain by pyroxenite. Thorncliffe mine in the eastern Bushveld exploits a reef that Xstrata AG have identified as LG6 because of its similarities to the LG6 reef in the west. However, the geological correlation of the two is not established and the reef at Thorncliffe may actually correlate with the MG1 reef in the west. **Figure 2-2** illustrates the characteristics of the western LG6/LG6a and the eastern MG1 (known by Xstrata South Africa as 'LG6').

Xstrata South Africa owns a silica quarry at Rietvlei near Rustenburg, supplying high-grade silica to the ferrochrome furnaces at Rustenburg. Probable Reserves are approximately 2.8 million tonnes and can be increased by pit expansions.

Figure 2-2 – Comparison between Western Bushveld LG6/LG6a reefs and the Eastern Bushveld MG1 reef (known by Xstrata South Africa as "LG6")

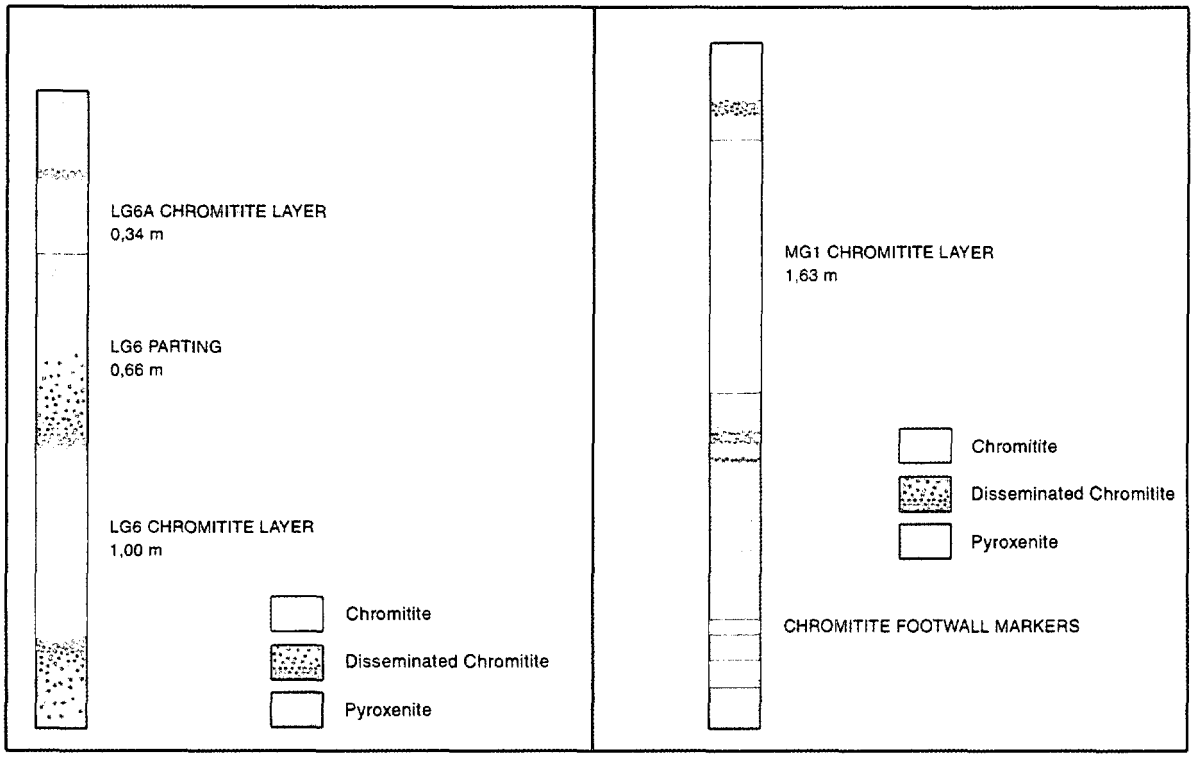

Figure 2-1, **Figure 3-3** and **Figure 3-4** are reproduced from "The mineral resources of South Africa", Wilson M.G.C., Anhaeusser C.R., eds., Pretoria: Council for Geoscience, 1998. 740pp. ISBN 1-875061-52-5.

Figure 3-5 illustrates the locations of the chrome mines in the south western Bushveld area.

2.2.2 Vanadium

The vanadium ore extracted by Xstrata South Africa at its Rhovan and Vantech operations occurs as a solid solution in titaniferous magnetite deposits within the Bushveld Complex. At Ba-Mogopa and at Steelpoortdrift, the magnetite is present in a series of discrete magnetite layers and ferrogabbros, at the contact between the Main and Upper Zones of the Rustenburg Layered suite. At Kennedy's Vale, the magnetite occurs as a magnetite plug within the lower part of a sub-zone of the main zone of the Bushveld Complex and the Mokombe deposit is a similar, but irregularly-shaped, body nearby. At Ba-Mogopa, the mineralised zone strikes for over 15 kilometres and Rhovan is mining centrally at five pits. The thickness of the mineralised zone varies from 30 metres to 50 metres with a grade of 29% to 30% magnetic fraction which, in turn, carries 1.95% V_2O_5. At Kennedy's Vale the magnetite plug is some 350 metres long and 25 metres wide. The mineralisation within the planned pit has a mean grade of 73% magnetic fraction, which carries 2.4% V_2O_5.

Rhovan is currently drilling at Ba-Mogopa and expects that this drilling will add significant resources and reserves to the current inventory. Vantech has limited reserves, but it has identified significant resources at Steelpoortdrift and sizeable mineralisation at Mokombe.

2.3 Summary of resources and reserves

Resources and reserves have been estimated according to the Joint Ore Reserve Committee (JORC) of Australia. All figures are in thousands of tonnes and are estimated as at 31 December 2001 and reserves are a subset of resources.

For chrome, the in-situ resource volume is estimated by determination of the inclined area of the reef within the licence area (adjusting unmined lease area by the dip angle of the reef) and multiplication of this area by the combined (LG6+LG6a) average reef thickness as estimated from drillhole and mining data, with an associated waste volume determined from the middling thickness not in resource. An estimate of resource tonnage has been obtained by multiplication of the estimated volume by an assumed average specific gravity (SG) of 4.1. Few determinations have been made, but an average SG of six samples at Waterval is 4.15, while a determination at Kroondal gives an SG of 4.0. The resource grade is obtained from a regional 'average' grade from borehole assays of LG6 and LG6a. The quality of Xstrata South Africa's laboratory analyses is audited independently on a monthly basis. The simplicity of this resource/reserve estimation method is permissible because of the exceptional continuity of both thickness and grade of the chromitite reefs in this region.

Vanadium assets

For the vanadium operations, block models have been produced which have been subjected to mine planning to define mineral reserves. Grades are supported by drilling and production data. Tonnage factors are derived from the direct relationship between magnetic content and specific gravity.

2.3.1 Chrome operations

Grades of chrome ore (excluding the waste 'middling' in the western Bushveld mines) are 38% to 40% for the eastern Bushveld mines, 41.7% at Wonderkop and 41.0% for the other western Bushveld mines. Specific gravity of the ore of 4.10 is assumed for all mines.

Table 2-2 – Summary of chrome reserves as at 31st December 2001 ('000 tonnes)[1]

Mine	Proved	Probable	Total
Waterval East	0	5,848	5,848
Waterval West	0	2,994	2,994
Kroondal	4,461	3,931	8,392
Kroondal Gemini[2]	0	15,882	15,882
Wonderkop	0	0	0
Townlands	0	9,851	9,851
Thorncliffe UG	3,198	2,818	6,016
Thorncliffe OP	0	2,123	2,123
Total reserves	**7,659**	**43,447**	**51,106**

(1) Reserves are presented on a total mine basis.

(2) Pursuant to a joint venture arrangement with Samancor Limited, the chrome operations are entitled to operate the Kroondal Gemini mine and utilise the ore produced from the mine for the furnaces at Wonderkop (two of which are in a production joint venture with Samancor).

Reserves are quoted after allowing for pillars and geological losses (potholes, fracture zones).

Table 2-3 – Summary of chrome resources at 31st December 2001 ('000 tonnes)

Asset	Inferred Resources	Indicated Resources	Measured Resources	Total (Measured and Indicated Resources)
Western Bushveld				
Waterval East (reserves expressed as in-situ resource)	0	8,795	0	8,795
Waterval East (pillars in mined out areas)	0	0	2,118	2,118
Waterval West (reserves expressed as in-situ resource)	0	4,662	0	4,662
Kroondal	6,260	0	0	0
Kroondal (reserves expressed as in-situ resource)	0	6,260	6,709	12,967
Kroondal (pillars in mined out areas)	0	111	1,977	2,088
Kroondal Gemini (reserves expressed as in-situ resource)	0	24,510	0	24,510
Wonderkop	12,000	6,400	0	6,400
Townlands	111,273	0	0	0
Townlands (reserves expressed as in-situ resource)	0	14,814	0	14,814
Total resources (W. Bushveld)	**129,533**	**65,551**	**10,804**	**76,355**
Eastern Bushveld (Thorncliffe area)				
Thorncliffe UG	50,170	4,238	2,914	7,152
Thorncliffe UG (reserves expressed as in-situ resource)	0	4,035	4,579	8,614
Thorncliffe UG (pillars in mined out areas)	0	0	638	638
Thorncliffe OP	0	1,508	0	1,508
Thorncliffe OP (reserves expressed as in-situ resource)	0	2,123	0	2,123
De Grooteboom	0	1,306	344	1,650
Helena	115,231	122	675	797
Total resources (E. Bushveld)	**165,401**	**13,332**	**9,149**	**22,481**
Total (East and West combined)	**294,934**	**78,884**	**19,954**	**98,836**

Resources are quoted as in-situ totals and inclusive of reserves. Resources in pillars within mined-out areas are quoted on separate lines.

2.3.2 Vanadium operations

In the estimation of resources and reserves, IMC have used appropriate cut-off grades, mining recoveries and dilution factors based on current economic factors.

Table 2-4 – Rhovan reserves as at 31st December 2001

Reserves Class	Tonnes ('000)	% Magnetic fraction	% V_2O_5 in magnetic fraction	% V_2O_5 in-situ
Proved Reserves	13,415	29.9	2.00	0.60
Probable Reserves	23,125	29.7	1.94	0.58
Total	**36,540**	**29.8**	**1.96**	**0.58**

Table 2-5 – Rhovan resources as at 31st December 2001

Resources Class	Tonnes (000's)	% Magnetic fraction	% V_2O_5 in-situ
Measured Resources	22,510	29.7	0.61
Indicated Resources	19,830	30.0	0.61
Inferred Resources	60,000		

Resources are quoted as in-situ totals (i.e. with no allowance for either mining or geological losses) and inclusive of reserves.

Table 2-6 – Vantech reserves as at 31st December 2001

Reserves Class	Tonnes ('000)	% Magnetic fraction	% V_2O_5 in magnetic fraction	% V_2O_5 in-situ	Ratio V_2O_5 in-situ
Proved Reserves	670	73.4	2.39	1.75	2.6

Table 2-7 – Vantech resources as at 31st December 2001

Asset	Resources Class	Tonnes ('000)	% Magnetic fraction	% V_2O_5 in magnetic fraction	% V_2O_5 in-situ
Kennedy's Vale Open pit	Measured	785	71.2	2.36	1.68
Kennedy's Vale Talus	Indicated	630	38.6	2.00	0.80
Steelpoortdrift	Indicated	29,200	39.7	2.02	0.80
Steelpoortdrift	Inferred	40,000			

2.4 Mines, projects and process facilities

2.4.1 Mining, processing and smelting operations

Chrome

Chromite ore is extracted from four underground mining operations on the Bushveld Igneous Complex, three near Rustenburg to the west of the complex, and one near Lydenburg to the east of the complex. Of the two mines located near Rustenburg, Kroondal is producing around 110,000 tonnes per month and Waterval is expected to start production in early 2002. Kroondal and the Gemini JV are classified as two mines by Xstrata South Africa, although both operations share the same infrastructure. Although Waterval is considered here as a new mine it is, in fact, on the site of a previous successful operation, with significant remaining ore reserves. The design capacity of the Waterval mine will be 160,000 tonnes per month of ore, once fully equipped. In the east of the complex, the Thorncliffe mine is producing around 100,000 tonnes per month.

A new mine is planned near Rustenburg – the Townlands mine. This is adjacent to the Waterval mine and, when commissioned, will have a capacity of 110,000 tonnes per month. Construction may start in 2003.

A quarrying operation west of Rustenburg produces a graded silica product for use as a flux in the company's ferrochrome furnaces.

Operations at all chrome mines are similar, the method of mining being mechanised bord and pillar. Ore is loaded onto conveyors for transport to the surface. Pillars are left in-situ as support for mining operations and to avoid surface subsidence. Owing to the stoping width (of the order of 1.8 metres), low-profile equipment is used. All operations are carried out to industry standards in a competent and professional manner.

Mining is generally within the mineral seam. Three shafts are sunk on dip (approximately 12 degrees to 14 degrees). These are a conveyor haulage shaft, access for mobile equipment and an intake airway. The mine stoping method is room and pillar. Pillars are left between the rooms. The pillars are partially recovered by cross-cuts between the drives, with the resultant pillar dimensions of 6 metres by 15 metres.

The reef is generally regular and uniform and planning of the mines is relatively straightforward. One tonne of mined ore contains about 65% chromite concentrate which is separated using conventional wet gravity concentration equipment (dense medium separation ("DMS") and spirals).

Chromite concentrate is transported by rail or road to the nearest group of ferrochrome furnaces for conversion to ferrochrome. With the plant and equipment currently available at the mines, plants and smelters, together with planned acquisitions, it is the opinion of IMC that the future production of ore, chromite concentrate and ferrochrome at the planned quality and tonnage is feasible.

Vanadium

Vanadiferous magnetite is mined from small, shallow open pits at Brits and at Kennedy's Vale. Ore is subjected to conventional crushing, grinding and magnetic separation to produce a magnetite concentrate. The magnetite concentrate undergoes a conventional salt roast/leach/precipitation process to recover saleable vanadium pentoxide (V_2O_5). Most of the V_2O_5 produced in future will be converted to ferrovanadium (FeV) alloy.

Production at Kennedy's Vale will cease in approximately 18 months and management plans to compensate by increasing production at Brits. IMC believes this to be entirely feasible.

2.4.2 Production levels

Chrome

IMC has reviewed the forecast production levels for the chrome operations and found them to be reasonable and attainable.

Table 2-8 – Summary of production from chrome operations

Year	1999	2000	2001
Total saleable mine production ('000 tonnes)	2,102.3	1,850.2	2,250.0
Ferrochrome attributable production ('000 tonnes)	969.0	1,140.0	860.6
Attributable ferrochrome sales ('000 tonnes)	1,017.1	1,028.1	836.7

Vanadium

IMC has reviewed the forecast production levels for the vanadium operations and found them to be reasonable and attainable.

Table 2-9 – Summary of production from vanadium operations

Year	1999	2000	2001
Total mined ore ('000 tonnes)	1,455	1,638	2,160
Total V_2O_5 production (tonnes)	11,260	9,858	12,894
Total ferrovanadium production (tonnes)	1,845	1,070	6,118
Total V_2O_5 sales (tonnes)	9,665	7,735	3,745
Total FeV sales (tonnes)	2,025	1,325	4,454

2.4.3 Management and human resources

During this review, IMC's consultants were in regular contact and held numerous discussions with Xstrata South Africa management at various levels. Based upon this contact and on direct observations of the operations, IMC is satisfied that Xstrata South Africa management is capable of implementing the proposed production plans.

Xstrata South Africa's policy of making business unit managers fully accountable for their operations has contributed to making Xstrata South Africa one of the lowest cost ferrochrome and vanadium producers in the world. Common operating and financial reporting formats among the operations assist in minimising overheads and permit performance comparisons between the various operations to be made.

In compliance with the Employment Equity Act, Xstrata South Africa has submitted, and has had approved, a 5-year plan for the advancement of black South African employees. Xstrata South Africa is also actively canvassing universities in an effort to attract engineering graduates.

The National Union of Mineworkers represents black mine workers at Kroondal and Thorncliffe chrome mines and at the vanadium operations. The National Union of Metalworkers represents the Wonderkop and Rustenburg smelter workers. Pay agreements are negotiated annually.

2.4.4 Health and safety

Xstrata South Africa's management is fully committed to ensuring the safety of all workers. Each facility has a full time Safety Officer responsible for the implementation of Xstrata South Africa's safety policy. The Safety Officer has line responsibility to the Business Unit Manager.

Safety and Health Committees elected out of the constituencies representing the total workforce, meet on a monthly basis with middle management. No new standards or procedures or codes of practices are introduced without consultation with the Safety and Health Committee.

Injuries in the work place form part of each business unit's monthly report and are summarised in the monthly report to Xstrata AG's executive. The Disabling Injury Frequency Rate ("DIFR") per 200,000 man-hours worked is one of the key parameters used to monitor safety performance in the mining industry.

Xstrata AG's chrome operations in 2001 had a DIFR rate of 1.5 which is approaching Industry Best Practice of 1.0. Disabling injury frequency rates at the Rhovan and Vantech vanadium operations were 3.4 and 3.2 per 200,000 man-hours respectively. The latter two rates are elevated, mainly due to the retirement of workers with respiratory conditions.

2.4.5 Transport

Xstrata AG's chrome mines and smelters can be reached via a well-developed national road and rail network. The closest Spoornet (national rail operator) station is at Rustenburg. This is connected to Xstrata South Africa owned exchange yards at the Wonderkop and Rustenburg smelters. These are used to deliver heavy capital goods and reductants to the smelters and transport ferrochrome to customers. Small quantities of ferrochrome are also transported by road. Private road hauliers are contracted by the mine to load and transport chrome ore for delivery to the ferrochrome smelters.

2.5 Environmental issues and management

A mining licence will be granted on approval of an Environmental Management Programme (EMPR) under Section 36 of the Minerals Act (Act 50 of 1991). A recent amendment to the act provides that the EMPR must also comply with the requirements of the National Environmental Management Act (Act 107 of 1998). The National Water Act requires all users to register their current use and submit applications for licenses for future use of the water.

IMC's desktop review of environmental compliance and permitting raised a number of issues requiring further monitoring, studies and changes to environmental management plans. Management stated that adequate resources had been budgeted for such work and therefore continued control of emissions to the environment within statutory limits can be reasonably expected. IMC considers therefore that there are no environmental factors likely to affect the valuation materially.

2.5.1 Rehabilitation provisions

Under the Minerals Act, the EMPR must provide an indication of the rehabilitation liabilities of the mining operations and quantify the costs of remediation. Once defined, there are two main ways in which remediation can be funded:

- provision in the annual operating budget for ongoing rehabilitation; and
- provision in terms of a trust fund for rehabilitation on closure.

Ongoing rehabilitation

Ongoing rehabilitation of the mining operations is focused on dust suppression, separation of clean and dirty water circuits and routine maintenance of tailings facilities. Management recognises that the vanadium plants have a greater impact on the environment and have allocated approximately ZAR10 million over the next five years for rehabilitation, in addition to providing for closure costs.

Closure rehabilitation

The required funding for closure is reviewed annually and **Table 2-10** *shows the cost estimate for Xstrata South Africa's mining operations.*

Table 2-10 Mining operations closure cost estimates

	Rehabilitation cost (ZAR millions)
Vantech	2.8
Thorncliffe	3.7
Subtotal Mpumalanga jurisdiction	**6.5**
Rhovan	5.5
Waterval East (Rustenburg)	2.1
Waterval West	0.9
Kroondal	1.7
Wonderkop	4.5
Rietvlei	1.0
Subtotal NW Province jurisdiction	**15.7**
Total	**22.2**

IMC has assessed the methodology used to determine the rehabilitation cost estimates. Operations are subdivided into areas (e.g. mine, dumps, plant etc.) and within each of these categories, calculations are made for demolition, shaping, cladding and vegetating. Current estimates appear appropriate.

Xstrata South Africa has registered a trust fund (IT 9781/1999) under the name Xstrata South Africa Rehabilitation Trust with the Master of the Supreme Court in Pretoria. Mining companies have the option of depositing funds into the trust or providing bank guarantees and Xstrata South Africa has opted for the latter.

Rehabilitation cost has been calculated for the Wonderkop mine and ferrochrome complex as it falls under the Minerals Act (by virtue of the mine) and management is continuing to operate the ISO14001 environmental management system with an outgoing clean-up of

the site. Provision has not been calculated for Rustenburg and Lydenburg ferrochrome smelters as there is no legal requirement for this.

Based on the examination of documents the cost estimates for rehabilitation requirements are appropriate. Issues such as the groundwater contamination at Rhovan will be addressed as part of the operational budget over the remaining life of mine.

2.6 Statutory Authorisations

An approved mining license is required for all mining operations in terms of Section 9 of the Minerals Act (Act 50 of 1991).

IMC has reviewed applicable statutory authorisations for mines and projects and a summary of the status of mining licences is given in **Table 2-11**.

Table 2-11 Summary of mining licences

Mine	Location(s)	Mining licence no.	Expiry date
Kroondal	Portions 24,26,45,46,47,50,51	22/01	Indefinite
	Parts of 13,41,43,44		
	Portions 86, 87, 89, 90, 133, 156	Approval expected early 2002[1]	2012
	Gemini	6/01	2011
Waterval East		13/98	2017
Waterval West	Townlands 45, 97	1/01	2011
Rietvlei	Portions 90, 98	94/00	June 2002
		1/95	2005
Thorncliffe		41/95	Indefinite
Wonderkop		None existing	–
Rhovan		17/00	2006
Vantech	Mineral areas 2, 3	29/97	Indefinite

(1) During an internal review in 2000, it was identified that a number of applications submitted in 1992 had not been approved and in fact portions of the Kroondal mine had no mining licence. The application has now been resubmitted and early approval is anticipated.

In IMC's opinion:

- for each mine and relevant project, appropriate statutory authorisations are in place or awaiting approval, which is not expected to be withheld;
- management is taking appropriate steps to maintain statutory authorisations for its mines and to obtain, where needed, new statutory authorisations for assets; and
- the mines are generally being operated in accordance with statutory authorisations and are not in material breach of those statutory authorisations.

2.7 Costs

2.7.1 Operating costs

IMC examined the forecasts of operating costs for all operations, as prepared by the management of Xstrata South Africa. The forecasts were compared with actual costs in previous years and, where considered appropriate, were modified following discussion with the Xstrata South Africa management. Operating costs were incorporated into the 15-year cash flows prepared by IMC for the purposes of the valuation of the Xstrata South Africa assets.

2.7.2 Capital costs

IMC examined the capital cost estimates prepared by management for the period 2002 to 2004. Where considered appropriate small adjustments were made to the figures, again following discussions with the company's management. The capital cost estimates were also incorporated into the cash flows. Where sustaining capital expenditure was considered to be necessary beyond 2004 then this was estimated by IMC.

2.8 Risks and synergies

Section 6 entitled "Special factors" refers to aspects of the business which may materially affect IMC's valuation, such as:

- furnace reductant prices;
- electricity prices;
- potential vanadium plant worker's health compensation claims; and
- markets.

2.9 Sales and marketing

Xstrata South Africa is a major producer of both ferrochrome and vanadium products and therefore has very detailed market knowledge and expertise in both products.

70% of Xstrata South Africa's ferrochrome sales are on long-term contracts and management believe that Xstrata South Africa currently commands approximately a quarter of world market share. Valuation of any ferrochrome production plan is very dependent on the view taken of the stainless steel market. The stainless steel industry has typically demonstrated an historical 4% per annum growth rate.

2.10 Valuations of reserves

2.10.1 Methodology and assumptions

- The chrome and vanadium assets of Xstrata South Africa have been valued using the DCF method. A 15-year (or less where insufficient Proved and Probable Reserves exist), post-tax cash flow has been prepared, covering all vanadium and chrome operations.
- The cash flow valuations have been based on the budgets prepared by the vanadium and chrome operations. IMC consultants have examined the operations and consider that the production forecasts are both reasonable and achievable.
- The cash flow has been prepared in constant year 2001 money values and on an "all equity" basis. In this way, the robustness of the assets of Xstrata South Africa are valued on a stand-alone basis. The post-tax annual cash flows have been discounted at a real rate of 9.5% (approximately equivalent to a nominal discount rate of 12.5%) and the Net Present Values (NPV's) in US$ calculated.
- Cash flows generated from Proved and Probable Reserves have been estimated and valued separately. IMC do not consider it necessary to further discount the probable reserves in view of their realisation in later years of the cash flow period.
- A ZAR/US$ exchange rate of 11.00 has been used in the valuation.
- Plant and equipment has not been valued separately since this is considered an integral component in the generation of the cash flows. The residual value of equipment is considered to be zero.
- Vanadium pentoxide prices used in the model are in line with independent forecasts from Roskill Information Services Ltd. Ferrochrome prices are based on management forecasts, which are generally more conservative than independent forecasts from the Commodity Research Unit.

Table 2-12 – Base case forecast prices

Real prices		2002	2003	2004
Ferrochrome CIF	USc/lb	27.3	27.3	28.0
Vanadium Pentoxide CIF	US$lb	1.1	1.7	2.4
Ferrovanadium CIF	US$/t	7.2	9.6	12.5
ZAR/US$		11.0	11.0	11.0

2.10.2 Valuations

Chrome

The "Gemini" joint venture with Samancor – involving 85,000 tonnes per annum of ferrochrome production attributable to Samancor has been allowed for in calculating Xstrata South Africa's share of the cash flow.

The increase in mine production is forecast to come from the Waterval mine, which is currently in development.

At a real discount rate of 9.5%, the post-tax NPV of the chrome operations is US$646 million. This valuation takes into account the value added by the furnace operations associated with the chrome operations.

Table 2-13 – Chrome operations valuation

Real discount rate (%)	*NPV (US$ millions)*
+2%	575
+1%	609
9.5%	646
–1%	687
–2%	732

The sensitivity of the NPV (at a 9.5% real discount rate) to variations in operating costs, revenues, capital expenditures and exchange rate is summarised below:

Table 2-14 – Base case valuation of attributable chrome reserves

	Proved Reserves (US$ million)	Probable Reserves (US$ million)	Total Reserves (US$ million)
Base case valuation	97	549	646

Table 2-15 – Chrome operations sensitivity analysis

	Base case total value (US$ millions)	Operating costs (+10%) (US$ millions)	Prices (–10%) (US$ millions)	Capital expenditure (+10%) (US$ millions)	Production/ sales level (–10%) (US$ millions)	Exchange rate (–10%) (US$ millions)
NPV Valuation	646	633	474	642	578	487

Vanadium

At a real discount rate of 9.5% the post tax NPV of the vanadium operations is US$195 million. This valuation takes into account the added value of the ferrovanadium conversion operation at Rhovan.

Table 2-16 – Vanadium operations valuation

Real discount rate (%)	NPV (US$ millions)
+2%	174
+1%	184
9.5%	195
–1%	207
–2%	221

Table 2-17 – Base case valuation of attributable vanadium reserves

	Proved Reserves (US$ million)	Probable Reserves (US$ million)	Total Reserves (US$ million)
Base case valuation	82	113	195

Table 2-18 – Vanadium operations sensitivity analysis

	Base case total value	Operating costs (+10%)	Prices (–10%)	Capital expenditure (+10%)	Production/ sales level (–10%)	Exchange rate (–10%)
	(US$ millions)	(US$ millions)	(US$ millions)	(US$ millions)	(US$ millions)	(US$ millions)
NPV Valuation	195	174	153	193	172	173

2.11 Conclusions

IMC concludes from the independent technical review that:

- management's geological and geotechnical mining knowledge and understanding is of a sufficient level to support short, medium and long-term planning as appropriate;
- the mine plans appropriately consider geological and geotechnical factors to minimise mining hazards;
- Xstrata South Africa's mining equipment (either in place or planned in the capital forecasts) is suited to its mine plans and adequate for the production levels forecast;
- chrome and vanadium ore-processing and associated ferrochrome and ferrovanadium plants and other infrastructure are capable of continuing to supply appropriate quality products to satisfy the export markets at the forecast volumes and can also supply domestic markets;
- environmental issues are well managed and there are no issues that could materially impede production nor are any prosecutions pending;
- the assumptions used in estimating both capital and operating costs are appropriate and reasonable;
- capital and operating costs used in the financial models reflect the mine plans, development and construction schedules and the forecast production levels;
- special factors identified by IMC are well understood by management and appropriate action to mitigate these risks is being taken. Further, the mine plans and cost forecasts appropriately account for these risks; and
- management operate a clear and comprehensive management accounting system and are able to monitor and forecast production and cost parameters.

IMC has estimated the value of Xstrata South Africa's chrome and vanadium operations at US$646 million and US$195 million respectively, assuming a real discount rate of 9.5%, ZAR/US$ exchange rate, product prices and cost and production forecasts which are soundly based.

3. Chrome mining operations

Xstrata South Africa chrome mines are located in the eastern and western Bushveld complexes near the towns of Kroondal and Lydenburg respectively in the North-West Province of South Africa. A map showing the positions of these mines can be found below (**Figure 3-3** and **Figure 3-4**).

3.1 Waterval

3.1.1 Geological characteristics

These mines exploit the LG6/LG6a reefs. Here the reef consists of approximately 1.0 metre LG6, 0.4 metres pyroxenite 'middling' and 0.25 metres LG6a – as measured during a mine visit (Waterval West) by IMC on 4 December 2001 and estimated during a mine visit (Waterval East, Purity section) by IMC on 12 December 2001 – but the thicknesses vary across the mine area. The reef dips north-eastwards at approximately 10 degrees north-eastward in the area of new development, and about 12 to 14 degrees in the old Waterval East and Waterval West areas. Between these established mine areas and the new areas to be mined there is a zone of disturbance, spatially associated with a 20 metre thick dolerite dyke (which trends south-east by north-west) and with downward displacement on the northern side. The rocks in this zone of disturbance are heavily fractured with close-spaced joints.

3.1.2 Maps and plans

Relevant maps and plans are included below (**Figure 3-1** and **Figure 3-2**). A general map showing the locations of all the western area chrome mines is provided in **Figure 3-4**.

3.1.3 Resource and reserve statement

Estimates of tonnage and grades

Waterval East has total Probable Reserves of 5.8 million tonnes of mineable chromitite (after allowing for pillars and geological losses).

According to Xstrata South Africa, Waterval West has an in-situ Indicated Resources of 4.5 million tonnes. IMC is satisfied that the mining and processing plans allow this to be upgraded to Probable Reserves of 3.0 million tonnes after allowance for pillars and geological losses.

The boundary between Waterval West and East mines has yet to be fixed and thus reserves might be transferred from one to the other. Note that as resources and reserves are established within Townlands A section (see Section 3.4.1 and **Figure 3-6**) these can be mined from Waterval West mine.

Expected recovery and dilution factors

Resource or reserve tonnage in unmined areas is adjusted for causes of loss.

The mining method leaves a substantial tonnage in supporting pillars. This is recorded as a measured resource. In the future, the tonnage of material in pillars will be dependent on the mining geometry adopted. Xstrata AG estimate that this averages 30% of total in-situ tonnage. It is subtracted from the resource and reserves figures. The extent of this loss will depend on geotechnical conditions and pillar design. There are losses due to geological problems such as potholes and minor faulting. This amounts to a 5% reduction in resource and reserves. Xstrata AG state that almost 100% of the identified reserves are mined. IMC concur with this statement.

3.1.4 Long-term prospects

There are inferred resources totalling an estimated 111 million tonnes in Townlands section 'A' ("Townlands A").

If Waterval West mines half of Townlands A at the anticipated mining rate the mine life will be 30 years. Some of the LG6/LG6a reef of Townlands A has a depth of more than 400 metres which makes the economics of mining it questionable.

3.1.5 Mining

Mines and plants follow ISO9001 quality procedures for training, but have not been accredited.

All production has so far come from the "Purity" section of Waterval.

There is no production from the Waterval East section, but the shafts are being advanced. Production will start in early 2002. Limited production from Waterval West will start during the first quarter of 2002.

The East section is forecast to produce 60,000 tonnes per month run-of-mine (ROM) ore in year 2002. Fully developed, the West section's estimated capacity will be 100,000 tonnes per month by mid 2003.

The mine is assumed to increase production to 900,000 tonnes per annum in 2007 and continue at this rate after this date. This production rate is less than the installed capacity of the mine.

Production from the Waterval mine after 2007 will come from the adjacent Townlands A minerals area. Based on the mine equipment seen, the production rates and proposed utilisation factors, these scheduled rates are achievable.

3.2 Kroondal

3.2.1 Geological characteristics

The mine exploits the LG6/LG6a reef. The total thickness is approximately 1.8 metres including LG6 (1.0 metres), the waste middling (0.5 metres) and LG6a (0.3 metres). The reef in this mine dips at an angle of about 8 to 10 degrees to the north.

There are features known as 'potholes' (less than 10 encountered so far) in which the reef appears to flex downwards in an oval or circular structure. Potholes are the principal reason for defining the 'geological loss' discussed below.

Down-dip from the existing central Kroondal workings, the pyroxenite middling increases in thickness, to a maximum of 2 metres beyond the limits of the Anglo American Platinum Ltd Northern lease (and hence beyond the area currently expected to be worked by Xstrata AG).

3.2.2 Maps and plans

The licence areas are shown in **Figure 3-7**.

3.2.3 Resource and reserve statement

Estimate of tonnage and grades

Kroondal mine (excluding the Gemini project area) has Proved Reserves of 4.5 million tonnes and Probable Reserves of 3.9 million tonnes of mineable chromitite (both after allowing for pillars and geological losses) in the Farmers, Anglo American Platinum Ltd Royalty and Northern Royalty areas.

Xstrata AG had identified 2.2 million tonnes in-situ (1.4 million tonnes after losses) of indicated resource in the Farmers Area. IMC is satisfied that the mining and processing plans allow this to be upgraded to a Probable Reserve and it is included in the reserves figures reported above. In the Gemini joint venture area, Xstrata AG reports a further 15.9 million tonnes of reserves owned by Samancor. IMC is satisfied that there is an adequate mining and processing plan and that these reserves can therefore be classified as a probable reserve. All of the reserves can be mined by Xstrata AG, subject to 20,000 tonnes per month required for supply to Samancor in fulfilment of Xstrata AG's obligations under the joint venture agreement.

Expected recovery and dilution factors

Recovery and dilution factors are as described in Section 3.1.3.

3.2.4 Long-term prospects

There are significant inferred resources of 6.3 million tonnes in the middle group (Mb) seams above the LG6/LG6a currently being worked. Xstrata AG has no current plans to prove or exploit these.

With the negotiation of the Gemini joint venture there is potentially a longer term future for the Kroondal mine, with a possible extension of the mine life to 20 years at a production rate of 110,000 tonnes per month.

3.2.5 Mining

Kroondal is a producing mine, with a demonstrated capacity of 110,000 tonnes per month of ROM ore. The Kroondal mine extracts reserves and resources from both the Kroondal and the Gemini sections. Average production in 2001 has been 85,280 tonnes per month.

IMC considers the planned production rates to be achievable.

3.3 Wonderkop

3.3.1 Geological characteristics

The Wonderkop mine exploited chromitite reef LG6/LG6a. However, it is understood that the principal reason for closure was the instability of the pillars resulting from local alteration of the 'middling' waste to a soft montmorillonite-clay. This resulted in extensive pillar failures in the mine and resultant loss of integrity of the roof spans.

3.3.2 Resource and reserve statement

Because of the closure of the Wonderkop mine and the anticipated difficulty of reopening, none of the chromitite can be classified as reserves. According to Xstrata South Africa's estimates, (with calculations verified by IMC), there are 6.4 million tonnes of Indicated chromitite Resource remaining in-situ, given an assumed specific gravity of 4.1.

The grade of this chromitite has been estimated by the company on the basis of a grade of 41% Cr_2O_3.

3.3.3 Long-term prospects

According to Xstrata AG there are large inferred resources: an estimated 12 million tonnes of chromitite in the MG reefs in ground owned by Xstrata AG at Wonderkop.

3.3.4 Mining

The underground mine at Wonderkop is not currently operating. The mine has a similar layout to the Kroondal mine. Since removing the pumps, the mine has flooded to about 10 metres vertically from surface. There are currently no plans to re-establish this operation.

3.4 Townlands Underground mine project

3.4.1 Geological characteristics

The geology of the Townlands area is similar to the Waterval area (Section 3.1.1). The LG6/LG6a reef dips westwards at 7 degrees to 12 degrees. There is a known fault zone and dolerite dyke, which has been encountered in both Waterval East and West and which extends

into Townlands A. A north-east by south-west fault, with throws of 2 metres to 4 metres, was extrapolated from adjacent platinum workings in the Merensky reef by D. Macleod (1995).

3.4.2 Maps and plans

A plan of the Townlands A and B1 licence areas is shown in **Figure 3-6**.

3.4.3 Resource and reserve statement

The LG6/LG6a chromitite in Townlands B1 is classified (calculations verified by IMC) as a Probable Reserve of 9.9 million tonnes, with an assumed specific gravity of 4.1 and after subtraction of 33.5% for mining losses (pillars) and estimated geological losses (potholes, dykes, and faulting).

The grade of this chromitite has been estimated by the Company at 41.7% Cr_2O_3.

3.4.4 Long-term prospects

Townlands A has a mineable surface area of 20 million square metres and hence a substantial Inferred Resource (see **Figure 3-5**), estimated at 111 million tonnes. Subject to confirmation of the resource, Xstrata AG plans to extract half of these resources through the proposed Townlands mine and half through Waterval West mine.

The LG6/LG6a reef over much of Townlands A has a depth of more than 400 metres and therefore there could be some doubt over the economics of working it.

3.4.5 Mining

The Townlands mine is the subject of a pre-feasibility planning study. The mining operation will be similar to Xstrata AG's existing operations in layout and mining method.

A production capacity of 110,000 tonnes per month of ROM ore is planned. Mining conditions are likely to be similar at Townlands to those at Waterval. Therefore, Townlands' production is expected to reach the planned tonnage.

Xstrata AG management estimate that there is a lead-time of 20 months to construct and prepare a mine for production. Mine construction could start at the beginning of 2003.

3.5 Rietvlei Silica quarry

The Rietvlei Silica quarry is situated 5 kilometres north-west of Rustenburg. Silica is obtained from a quarry in a prominent Silica ridge striking approximately north-south. The ore is crushed down to various size fractions. The bulk of the product supplies the ferrochrome furnaces of Xstrata AG in Rustenburg and Wonderkop.

3.5.1 Geological characteristics

The Magaliesburg Formation consists of quartzites (often recrystallised) and shales varying in thickness from 500 to 3,800 metres. The formation forms a very resistant, prominent topographical ridge.

At Rietvlei, the quartzite dips towards the east and north east varying between 32 degrees and 62 degrees. The Magaliesburg Formation forms the immediate floor to the Bushveld Igneous Complex. The quartzites vary in grain size from fine to coarse grained.

3.5.2 Resource and reserve statement

The reserves have been estimated from the 1,340 metres level up to the topographical surface.

Indicated Resources inclusive of reserves	30,378 ('000 tonnes)
Probable in-situ Reserves	22,783 ('000 tonnes)

The reserve estimate is based on an estimated recovery of 75%.

IMC is satisfied that there are sufficient reserves of silica in Rietvlei to meet the future requirements of the Xstrata AG furnaces for at least 15 years.

3.5.3 Mining

Rietvlei is a quarrying operation and processed to provide a silica product for use as a flux in Xstrata AG's ferrochrome furnaces. The quarry currently produces around 15,000 tonnes per month of product.

3.6 Thorncliffe

3.6.1 Geological characteristics

The Thorncliffe mine is situated in the eastern Bushveld. The geological correlation of chromitite reefs in the eastern Bushveld with those in the western Bushveld is uncertain. However, the most important reef in the Thorncliffe mine has the appearance and similar properties to LG6/LG6a in the western mines and is also known as LG6. A significant difference, however, is that the LG6 seam itself is considerably thicker than in the west, while LG6a (if it can be considered at all) is much thinner and the pyroxenite middling contains disseminated chromite.

Although thicker than in the western Bushveld mines, the LG6 chromitite contains lenticles of pyroxenite. It also has a poikilitic texture, with enclosed crystals of pyroxene, suggestive of a higher internal waste content – though the overall chromitite grade at 38% to 40% Cr_2O_3 is not significantly lower than in the western mines. In places, it is also cut by pegmatoid intrusions – identified by a lighter colour.

3.6.2 Maps and plans

A plan of surface rights in the Thorncliffe licence area is shown in **Figure 3-8**. Xstrata South Africa own all of the mineral rights within the entire area indicated. Xstrata South Africa also owns chrome rights on the De Grooteboom and Helena farms.

3.6.3 Resource and reserve statement

Estimates of tonnage and grades

A total thickness of LG6/LG6a and waste was measured underground by IMC at 2.4 metres, of which 2.0 metres was identified as the main LG6 reef.

Thorncliffe mine has Proved Reserves of 3.2 million tonnes (mineable) in the LG6/LG6a reef and Probable Reserves of 2.8 million tonnes mineable underground. There is further Probable Reserves of 2.1 million tonnes available for opencast exploitation adjacent to the Thorncliffe mine.

Measured Resources of 2.9 million tonnes of in-situ chromitite (with an estimated 410,000 tonnes of internal waste) plus Indicated Resources of 8.8 million tonnes in-situ have also been identified down-dip from the current mine.

There is also 343,000 tonnes of Measured Resources and 1.3 million tonnes of Indicated Resources in the de Grooteboom 373,000 tonnes property to the north of Thorncliffe, as well as 675,000 tonnes of in-situ Measured Resources and 122,000 tonnes of in-situ Indicated Resources on the Helena 6JT farm to the south of Thorncliffe. None of these figures allow for possible geological or mining losses.

Chromitite grades of the reserves and resources are reported to vary within a narrow range of 38% to 40% Cr_2O_3.

Expected recovery and dilution factors

Resources in unmined areas must be adjusted for two causes of loss.

The tonnage of material to be left in pillars during future mining is dependent on the mining geometry adopted. According to the Xstrata South Africa's own estimates, this represents about 28% of total in-situ tonnage.

Secondly, there are losses due to geological problems such as the potholes and minor faulting. At Thorncliffe a 3% reduction in resource estimates is included for this.

There is inevitably some dilution during mining as a result of a mixture of waste from the hangingwall. However, because of the contrast in physical properties of the chromitite (which tends to be friable and breaks into small pieces) and the waste rock (which is tough and breaks into large blocks), any waste which has been loaded with the ore can be removed manually at the loading point on the conveyor.

3.6.4 Long-term prospects

There are significant Inferred Resources estimated at 50 million tonnes by Xstrata South Africa, in the LG6/LG6a, MG and UG2 reefs (the latter containing also platinum values owned by Xstrata South Africa). There are also very significant Inferred Resources on the adjacent Helena property, estimated at 115 million tonnes, on which Xstrata South Africa owns the chrome mineral rights.

Xstrata South Africa is in the process of re-opening an existing exploration adit on the UG2 reef on the Thorncliffe property with a view to evaluation of the UG2 potential for both chrome and platinum extraction.

The existing Thorncliffe mine has many years of potential development. It is currently constrained between two parallel dolerite dykes trending north-north-east to south-south-west, but there is no reason why the mine should not be extended laterally across either or both of these to access further resources.

3.6.5 Mining

Thorncliffe mine is a producing underground mine, with a capacity of 110,000 tonnes of ROM ore per month. The ore is delivered to the adjacent Thorncliffe processing plant. Average monthly production in 2001 was 91,911 tonnes.

It is reasonable to assume that once the mine plan has been extended, present resources will be transferred to the reserve category for production to continue after this estimated period of 5 years. The type of equipment seen at the mine is adequate to meet planned production rates.

4. Chrome furnace operations

There are two smelting operations in the Rustenburg region, namely Rustenburg and Wonderkop.

The Lydenburg smelting operation is fed mainly from the Thorncliffe mine near Steelpoort. Ore is also purchased from outside the Group by all smelters when low cost supplies become available. The principal features of each smelting plant are:

- receiving raw materials, storage and blending;
- furnace operations;
- separation of metal from slag, casting, crushing and screening;
- processing of slag for recovery of metal; and
- product storage and despatch.

All furnaces and auxiliary equipment are connected to dust collection facilities. Each plant has its own accredited ISO14001 environmental management system and ISO9001 quality management systems which support both furnace efficiency and customer requirements.

4.1 Wonderkop

4.1.1 Production schedule

The Wonderkop plant has the installed capacity to produce 514,800 tonnes per annum of ferrochrome, of which 85,800 tonnes per annum is attributable to Samancor under the Gemini Joint Venture agreement. A further 30,000 tonnes per annum of metal is recovered from slag, of which 10,000 tonnes per annum is saleable. Only limited capital is required for repair and replacement items in the operating furnaces to achieve the planned increase in production from 282,152 tonnes in 2001 to 432,000 tonnes in 2004.

4.1.2 Plant and equipment

Wonderkop has six 45MVA furnaces, each with a capacity of 85,800 tonnes of ferrochrome. Furnaces 5 and 6, built in 2001, operate in a production joint venture agreement with Samancor who shared equally in the capital cost of the expansion and receive half the production at the joint venture's cost of production.

Raw materials including chromite concentrate, reductant and flux are delivered by rail and truck. Coals and chars are sourced from the Witbank area and local coke from Vanderbijlpark, about 250 kilometres away. The only rail deliveries are coke imported from Zimbabwe and China, the latter through Richards Bay, and anthracite from Swaziland.

Feedstock is prepared in two types of agglomeration unit. The pelletising plant was built to agglomerate the UG2 (platinum mine tailings) concentrates. The pelletising process includes drying, milling, binder addition, balling and induration. While the plant is maintenance intensive, availability above 95% has been achieved. A third dryer is being installed to improve plant performance. The plant currently achieves a production of 35,000 tonnes per month of pellets.

The block-making plant, has a capacity of 360,000 tonnes per annum and is a flexible agglomeration unit, which combines the elements of in-plant fines recycling with size enlargement of UG2 concentrates. Cement is used as a binder.

Product crushing and screening operations are on a campaign basis with specific reference to customer requirements for chemistry and sizing. Approximately 10% of feed to the crusher is reduced to less than 10 millimetres, a size fraction which is sold at a discount to the price of lump product. In addition to the prime quality products that meet the 1% maximum slag specification, there are also products recovered from slag which typically contain between 2% and 3% slag.

Metal recovery from slag is approximately 30,000 tonnes per annum.

Samples of finished product for shipment are taken using an automatic sampler according to ISO sampling standards. The plant has its own laboratory that provides analytical support to the production department and which verifies shipment quality.

The baghouse dust is slurried, treated with ferrous chloride solution to prevent the release of hexavalent chromium and then pumped to a double plastic-lined tailings dam fitted with a leak detection system. Treated water is recycled to the process.

Most reductants are brought into the complex owned siding by rail where they are off-loaded by grab. In future, to facilitate reductant off-loading, a rail car tippler mechanism is being installed along with a conveyor to the storage area.

Rail wagons are marshalled using three Xstrata South Africa-owned locomotives. Track is maintained by contract labour.

ESKOM supplies its electricity via the national grid to a transformer sub-station located on the site of the Wonderkop smelting operations. The incoming ESKOM voltage of 88 kilovolts 50 Hertz is transformed to 33 kilovolts via five transformers, two of which are dedicated to the two new furnaces. Load capacity is 400 megavolt amperes. Maximum demand has been set at 310 megavolt amperes.

Wonderkop smelting facility transforms the 33 kilovolts incoming ESKOM feed to 11 kilovolts and 380 V 3 phase for distribution within the complex. Flexibility of the internal network enables the power to be switched to any of the six furnaces units.

The Rand Water Board supplies the make-up water for the Wonderkop complex. All other water used in the operation is re-cycled water.

4.1.3 Environmental

There is an informal settlement downwind of the plant and an air monitoring programme is planned for implementation shortly. Management intend to review the validity of the risk assessment.

4.2 Rustenburg

The six furnaces comprise one of 45 megavolt amperes, two of 40 megavolt amperes and three of 33 megavolt amperes with a total ferrochrome production capacity of 430,000 tonnes per annum, including the slag recovery plant. One of the two ex-CMI furnaces has been converted to a slag cleaning operation under contract to Anglo American Platinum Ltd.

4.2.1 Production schedule

Furnaces 1,2 and 3 could be modified to produce approximately 75,000 tonnes per annum extra. Any increase in the capacity of Furnaces 5 and 6 would require considerable modifications. A pelletising and pre-reduction project for Rustenburg has been approved and the first phase is expected to be in operation by March 2003. This would supply agglomerated feed with a degree of metallisation.

The Rustenburg plant produced 186,808 tonnes of ferrochrome in 2001 but has the capacity to produce 430,000 tonnes per annum. A further 10,000 tonnes per annum of metal will be produced after the completion of the Anglo Platinum slag treatment project. The capital required for repair and replacement is higher than Wonderkop to maintain this level of productivity. Furnace capacity expansion is not possible, but the introduction of more agglomeration equipment will enhance productivity.

4.2.2 Plant and equipment

There are two block making plants, both using the same equipment as at Wonderkop. The first plant has a capacity of 220,000 tonnes per annum and the second of 360,000 tonnes per annum. The blocks produced at Rustenburg incorporate a small percentage of pebbles, which permits the cement addition to be lowered by 2%. As at Wonderkop, the block plants provide a convenient means to recycle in-plant fines and add UG2 concentrates into the process. The second block plant is being modified under the Anglo American Platinum Ltd contract to make the two lines completely independent, such that PGM slags can be agglomerated.

The handling of metal from the furnace to its final saleable form is the same as for Wonderkop.

The metal recovery from slag processing is different from Wonderkop. A new plant utilises the existing primary jaw crusher, storage bin and primary screen. From this point the equipment is new and under commissioning. Three parallel lines treat the three sizes separately and generate saleable metal, which is delivered to the finished product yard and "skrot" or contaminated metal, which is recycled to the furnaces. The reject streams from the jigs are treated with ferrous chloride solution to reduce any hexavalent chromium present and transported to the slag dump. There is an old slag dump at Rustenburg which is expected to be reprocessed by mid-2003 and the ex-CMI slag dump by mid-2006. After this, current arisings of slag will be the sole feed. The performance of this plant is still to be proven.

Gas handling systems and product despatch are the same as for Wonderkop.

A small mechanical and electrical repair facility is maintained to handle the day-to-day plant maintenance. All major machine shop, fabrication work and large component repairs are sub-contracted to approved local companies. The Rustenburg smelter operates a railway exchange siding for ferrochrome deliveries and receipt of reductants (coke). Maintenance of the track and the overhead transmission system is contracted out.

A basic planned maintenance programme is in place covering all major equipment. Record keeping is diligent and management's control of costs is good.

The Rustenburg smelter has power supply agreements with both ESKOM and the Rustenburg Municipality. Sufficient flexibility exists within the internal electrical network to maintain power to the different furnaces under various operating scenarios.

No significant ESKOM power failures were experienced in 2001.

4.2.3 Environmental

Semi-quantitative measurements taken within the plant area in 2000 indicated that certain areas were out of compliance, including NO_x and SO_2 measurements in the baghouses. IMC share management's view that the measurements are probably suspect as the Wonderkop baghouse system, which is similar to that at Rustenburg, is operating in compliance. Management intend to re-analyse gases by a quantitative method.

4.3 Lydenburg

The Lydenburg plant was originally a two furnace operation started in 1977 using a technology supplied by Showa Denko of Japan. Xstrata South Africa purchased the Lydenburg assets and the associated Thorncliffe mine in 1998.

4.3.1 Production schedule

The Lydenburg plant has a rated capacity to produce 354,800 tonnes per annum of ferrochrome, with a bias towards low silicon granulated product. A further 24,000 tonnes per annum of metal can be extracted from the slag, of which approximately 10,000 tonnes per annum is saleable. Production in 2001 was 391,649 tonnes of ferrochrome. The capital required for repair and replacement is slightly higher than for the furnaces at Rustenburg and Wonderkop.

4.3.2 Plant and equipment

Half of all raw materials including all ore is delivered by road and the remainder by rail. The coals and chars are sourced from the Witbank area and local coke from Vanderbijlpark, about 200 kilometres from Lydenburg. Anthracite is sourced from Xstrata South

Africa's captive Maloma mine in Swaziland and bentonite from Mozambique. Fluxes are available local to the plant. Electrical power is supplied from the grid from ESKOM.

The pellets are heated in a rotary kiln to a temperature of about 1,200°C using pulverised coal as the fuel with oxygen enrichment to boost productivity. The two kilns have the combined capacity to produce about 60 tonnes per hour of pellets with 40% metallisation, or about 450,000 tonnes per annum at an availability of 85%. The hot metallised pellets are blended with fluxes and reductants and fed directly to the No. 1 and 2 furnaces. Surplus pellets are quenched and stored for use during periods of kiln maintenance. Some of the cold pellets are incorporated into the batch to No. 3 and 4 furnaces.

The Lydenburg plant was designed to granulate most of the hot metal. However, the market requires the low silicon levels unique to the Lydenburg process in both a lump and granulated form.

The slag processing plant at Lydenburg was commissioned in August 2000 for the dual purpose of metal recovery and to treat hexavalent chromium from dusts which had in the past been dumped with the slag. The process includes crushing and screening, followed by jigs and spirals. The reject stream is treated with ferrous chloride solution to reduce the hexavalent chromium. The capacity of the plant is 100,000 tonnes per annum of slag and is expected to yield 2% to 3% metallics. About 50% is current slag and the rest will come from the old slag dumps, which should be reprocessed in eight years. The jigs and spirals produce both saleable metal which is delivered to the finished product yard and skrot, which is recycled to the furnaces.

Furnaces 1, 2 and 3 are connected to wet venturi scrubbers while No. 4 furnace is connected to a dry gas cleaning system such as at Wonderkop and Rustenburg. The advantage of wet gas scrubbing is that the furnace gas retains its calorific value and may be used in-plant as a fuel source. The venturi sludge and baghouse dust are slurried, treated with ferrous chloride solution and then pumped to the tailings dams.

The Lydenburg plant has the capability to produce an extra low silicon alloy. Limited capacity exists in South Africa for producing this quality, including at the Rustenburg and Wonderkop plants. The market for low silicon alloy is more secure, such that the Lydenburg plant may well be needed to operate at full capacity in weak markets.

Despatch of finished products is usually by rail. The products are transferred by front-end loader, from where the shipment samples are collected. The plant has its own ISO17025 certified laboratory which provides analytical support to the production department and which verifies shipment quality.

4.3.3 Environmental

Prior to Xstrata's purchase of the Lydenburg operations in 1998 there was evidence that groundwater contamination had taken place in the vicinity of dams 10, 11 and 12. The extent of the contamination was extremely localised with no impact on adjacent landowners.

Subsequent to the acquisition of the Lydenburg operations Xstrata initiated a detailed geo-hydrological study in order to properly define the source and extent of the contamination. The ongoing results of the study indicate that the current level of contamination is below South African statutory limits. Notwithstanding this Xstrata continues to apply neutralising agents to the above dumps in order to prevent any further contamination.

Xstrata South Africa management continually review their environmental management plan in the light of ongoing results obtained from the geo-hydrological modeling study.

5. Vanadium mining, processing and conversion operations

5.1 Rhovan

5.1.1 Geological characteristics

The vanadium occurs as vanadium pentoxide, V_2O_5, in solid solution in magnetite in a series of vanadiferous titaniferous magnetite seams and magnetite-rich ferrogabbro layers at the base of the Upper Zone of the Rustenburg igneous layered suite of the Bushveld Complex. This mineralised zone, which is some 30 metres to 50 metres thick, lies between the Anorthosite at the top of the Main Zone and the Main Magnetite Seam at the base of the Upper Zone.

This mineralised zone extends at surface or under shallow cover for a strike length of between 15 and 17 kilometres, within the Mining Licence. The zone strikes east west and dips at between 10 degrees and 42 degrees to the north. It shows some local folding with the strike swinging more north to south and dipping to the east. The zone is broken up by sets of cross-cutting diabase dykes and faulting, with minor pegmatoid intrusions.

Rhovan has divided the mineralised zone into the lower zone sequence, which sits on the anorthosite footwall and the intermediate zone. The lower zone is composed of the footwall seam, the footwall sub-zone, the boulder sub-zone and the hanging-wall sub-zone. The intermediate zone begins with the low-grade ore sub-zone, a waste layer, the Lucky Strike, another waste layer and the top the intermediate seam. At surface the magnetite-rich rocks have weathered to form deposits called talus.

5.1.2 Maps and plans

Figure 5-1 shows the Rhovan mining licence

Figure 5-2 shows the reserves and resources at the Rhovan opencast site.

5.1.3 Resource and reserve statement

Estimates of tonnage and grades

A statement of Rhovan's reserves and resources as at 31 December 2001 is shown in **Tables 2-4** and **2-5**. Rhovan has converted a proportion of the mineral resources to reserves by applying mining, metallurgical, and economic factors based on operating experience since 1992 and current market conditions.

Shallow Probable Reserves in Pit 1 could be upgraded to Proved Reserves once their extraction has been planned in more detail. The Probable Reserves include 2.1 million tonnes of talus, which can be blended in during production.

IMC has independently estimated and confirmed the mineral resources in Pit 5. If any of the criteria changes then the reserves can change either by the addition of currently marginal material or by the removal of material that is no longer economic.

Expected recovery and dilution factors

A mining recovery of 97.5% and a mining dilution of 5% were applied. The mining recoveries are high since the footwall contact has a very distinctive boundary. The dilution is mainly a result of inclusion of sub-grade mineralisation as either included waste or from the hanging wall. The SG has been determined for 248 samples with a range of magnetic content. These results have been used to calculate a formula to show the relationship between magnetic content and specific gravity. The average SG used to determine the reserves for Rhovan was 3.38.

5.1.4 Long-term prospects

At Pit 5, drill data, which is not yet modelled, could increase the tonnage of shallow mineral resources, which would require limited planning to add it to the Proved Reserves. The current infill drilling of the down dip extension of Pit 2 could result in a significant increase in the Probable Reserves.

In the remainder of the licence area, including the Pit 3 site, Rhovan has estimate Inferred Resources of some 60 million tonnes.

5.1.5 Mining, processing and conversion

Production schedule and comment on extraction rates

The mining schedule is based on ore production from Pit 5 for 2002 and 2003. The down dip extension of Pit 5 will provide ore for 2004. Increased waste removal is planned for by increasing the use of contracted mining equipment.

The vanadium production facilities at Rhovan consist of conventional vanadium pentoxide (V_2O_5) and ferrovanadium (FeV) plants. The latter entered commercial production in November 2000 with sales commencing in June 2001.

Run-of-mine ore is crushed and conveyed to a 5 megawatt autogenous grinding mill fitted with a pebble crusher and operating in a closed circuit with cyclones. Magnetite is separated from the ground material in low-intensity magnetic separators, followed by regrinding in a ball mill and a second stage of magnetic separation. Magnetite concentrate is filtered and stockpiled under cover prior to being blended with sodium carbonate flux and roasted in a coal-fired kiln.

The resulting calcine is conveyed to one of three leach dams that are used to recover the vanadium bearing solution. Barren solid residue is mechanically scraped from the dams and conveyed to the calcine stockpile.

Silica is removed from the pregnant solution by addition of aluminium sulphate, followed by filtration. Ammonium metavanadate is precipitated from the clean pregnant solution by addition of ammonium sulphate, then filtered. Ammonia is driven off in two electric kilns to form V_2O_5 powder that is then melted in an electric furnace to form V_2O_5 flakes.

V_2O_5 flakes form the feed for the ferrovanadium process where V_2O_5 is reacted with aluminium, iron and lime in an exothermic process to produce FeV ingots and an alumina slag.

Plant production is scheduled to approximately double over the period 2002 to 2004 following the closure of the Vantech operation.

Electrical power is supplied through the grid by ESKOM while the kiln is fuelled by coal.

Plant and equipment

The combined existing Rhovan and Vantech mining fleet will not be capable of achieving the production requirements from 2004 and management intend to continue with their hire/lease policy or bring in contract mining for waste removal.

The V_2O_5 plant is in generally satisfactory condition with some sections having been renewed within the last 4 years, including the autogenous grinding mill, de-ammoniator section and flaking wheel. One exception is the sulphuric acid storage tank foundations which have subsided, probably due to contamination. Management state that measurements have been made to confirm the integrity of the tank.

Environmental

Groundwater contamination on site is severe. Preliminary data suggests sulphate concentrations of up to 123,000 milligrammes per litre adjacent to the scrubber dams and 8,000 milligrammes per litre off site. The extent of the contaminated plume has recently been defined and mitigation options include those currently being undertaken at Vantech such as pumping to evaporation ponds. The

potential liability for groundwater pollution is of concern and while it is not affecting adjacent users currently, management intend to define clearly end land use and resultant ground water qualities. Over the last four years, management have taken a responsible approach to reducing new groundwater contamination by sealing roads and plant foundations and installing lined evaporation ponds for contaminated water. Management intends to continue this approach over the life of the mine which will limit the liability for final closure.

The North West Province Air Pollution Officer is reported to be considering changing the compliance criteria in the air pollution certificates. Some discussions which have taken place indicate that these changes will affect the overall operations. The extent of this potential liability has not yet been determined and with the new atmospheric pollution act coming into place in 2002, there will be increased pressure on compliance. This could have cost implications if negotiations to maintain current standards fail and additional air pollution control equipment is required.

5.2 Kennedy's Vale (Vantech)

5.2.1 Geological characteristics

The Kennedy's Vale deposit is a pipe-shaped body within the lower part of the main zone of the Bushveld Complex. The V_2O_5 occurs in solid solution in coarse-grained titanomagnetite, which occurs in massive irregular lenses in a magnetite pyroxenite, some 350 metres long and some 25 metres wide and tapers at depth. This magnetite body is enclosed within a marginal grade envelope of magnetite pyroxenite, which is within an outer envelope of ultra coarse-grained pegmatitic pyroxenite. The orebody has been interpreted as a replacement of a pegmatoid or the result of slumping of magnetite from the base of the upper zone of the Bushveld Complex.

The Steelpoortdrift prospect has a similar setting to the mineralisation at Rhovan. The vanadium occurs as vanadium pentoxide, V_2O_5, in solid solution in magnetite in a series of vanadiferous titaniferous magnetite seams and magnetite rich ferrogabbro layers at the base of the Upper Zone of the Rustenburg suite of the Bushveld Complex.

This zone subcrops beneath a layer of talus and it dips at 10 degrees to 12 degrees to the south-west. Vantech has concentrated on a 1,000 metre section in the south that is favourable for mining.

On the De Goedverwachting farm, Mokombe Hill contains a vanadiferous magnetite body, which lies below the Kennedy's Vale body in the Bushveld sequence. It displays a finely layered texture but it has not been possible to interpret its structure.

5.2.2 Maps and plans

See **Figure 5-4** for a map of Kennedy's Vale reserves.

5.2.3 Resource and reserve statement

Estimates of tonnage and grades

The Vantech statement of reserves and resources at Kennedy's Vale as at 31st December 2001 is shown in **Table 2-6** and **2-7**.

Expected recovery and dilution factors

Based on design and operating experience since 1992, Vantech has converted a proportion of the mineral resources to reserves. Mining losses are minimal and sub-grade material is normally identified from blast hole data and stockpiled separately for blending. IMC has examined the estimated impact of a nominal mining recovery of 97.5% and a mining dilution of 5% of sub-grade mineralisation and it has found that this has only minor impact on the reserves tonnages and grades reported by Vantech. The average SG used to determine reserves as Vantech was 3.68.

5.2.4 Long-term prospects

The current reserves are confined to the Kennedy's Vale pit. The Indicated Resources at Steelpoortdrift could be promoted to reserves once licensing issues are resolved and the technical studies are updated.

Vantech has estimated additional Inferred Resources at Steelpoortdrift of some 40 million tonnes. At Mokombe Hill on De Goedverwachting, Rhovan have identified significant mineralisation but is not sufficiently defined to be a resource.

5.2.5 Mining and processing

Production schedule

The ore within the Kennedy's Vale Open Pit is almost exhausted and there is only sufficient ore remaining to maintain production until approximately September 2003.

The current ore production level is bench 870 and it is planned to mine down a further 30 metres to bench 840.

The processes employed at Vantech are very similar to those at Rhovan but the magnetic content of the ore is much higher than at Rhovan, at approximately 70%. Consequently, the amount of ore treated per tonne of V_2O_5 produced is approximately one third. Run-of-mine ore is subjected to three stages of crushing and a preliminary dry magnetic separation stage. Magnetics are ground in a ball mill in closed circuit with a cyclone and then subjected to wet magnetic separation to produce a magnetic concentrate.

The kiln and subsequent V_2O_5 production circuits are the same as Rhovan except that Vantech uses the ammonium polyvanadate (APV) route, which uses less sodium sulphate at lower pH, modified with sulphuric acid.

As at Rhovan, electrical power is supplied by ESKOM and the kiln is coal-fired.

A small (60 tonnes per month capacity) chemical grade V_2O_5 plant was commissioned in April 2001, which produces a high purity product by re-dissolving metavanadate (using caustic soda) followed by double precipitation.

The production schedule can be met with the existing plant equipment and associated calcine and tailings dams.

Plant and equipment

All equipment in the plant appeared to be maintained in a satisfactory condition and no major failures are considered likely to jeopardise the production schedule. A baghouse has recently been commissioned to recover dusts from the kiln off-gases. Vantech have planned for closure in 2003 at a cost of ZAR 2million, excluding redundancy costs. Approximately 80 skilled staff will be transferred to the expanded plant at Rhovan. Approximately 600 tonnes per month of sodium sulphate salt will be recovered using the plant evaporator and evaporation ponds over a period of five years. The operating cost of this operation will be paid for by the purchase of the salt by Rhovan. At the same time, Vantech will continue to produce chemical grade V_2O_5, using AMV purchased from Rhovan.

Environmental

IMC did not detect any non-compliance with environmental regulations at Vantech.

6. Special factors

Where risks are likely to impact on Xstrata South Africa's forecast production, capital and operating costs by less than 10%, they are not considered significant. Any identified potential significant risks which are not adequately addressed in Xstrata South Africa's production plans are considered to be "material" and are listed below.

6.1 Reductants (medium risk)

One major concern in relation to the ferrochrome smelters is the supply of suitable quality reductants. Metallurgical coke has always been the preferred material, but there is insufficient supply for the expanding demand. Xstrata South Africa has developed other coke supplies, but the quality of Zimbabwean coke has been variable and imports from China, while of good quality, must be paid for in US Dollars. The company has taken the following measures to lessen this concern:

- conversion of the kilns from coke fines to anthracite fines;
- Xstrata South Africa purchases reductant from Glencore International's Chartech plant at Witbank which produces char from local coal; and
- Xstrata South Africa has purchased an anthracite mine (the Maloma mine) in Swaziland to supply Xstrata South Africa with a low phosphorus reductant.

An increase in the supply of reductants with acceptable levels of phosphorus and sulphur will be required to meet increased production levels. The supply of coal within South Africa should, however, not present a constraint on increased production.

Xstrata South Africa's purchase of coal mines in South Africa and Australia will go a long way to reducing their dependency on outside sources of reductants.

6.2 Health issues (low to medium risk)

Vantech are currently co-operating in a public enquiry into the health of workers at the plant.

Some dust control measures remain to be implemented at Rhovan in 2002 for which capital expenditure has been allowed. These are expected to bring the plant hygiene to a regulated standard. In parallel, management are rigidly enforcing the use of personal protective equipment (PPE) in relevant areas.

IMC considers that both Vantech and Rhovan could be the subject of as yet unquantified claims for compensation from former employees, who have retired on health grounds. While some responsibility will lie with previous owners, IMC consider that a portion of any potential claims will fall on Xstrata South Africa. Workers' compensation payments in South Africa come from a fund to which employers are required to contribute which would limit Xstrata South Africa's commercial exposure. However, in some cases the commissioner of the compensation fund may pass on costs to the employer.

6.3 Electricity (medium risk)

Heavy consumers of electrical power in the South African mining industry currently enjoy some of the cheapest power available world-wide, with prices starting at US$0.01 per kilowatt hour. With energy accounting for approximately 30% of the total smelting cost, clearly any price increase would impact significantly on South African ferrochrome producers' costs and their global competitiveness.

6.4 Markets (medium/high risk)

Given the stability in the chrome price, there is only a medium risk in the short-term of a detrimental effect on the valuation of the chrome assets.

Based on historic volatility of the vanadium price it is possible that the valuation of the South African vanadium assets will be affected by the price in the short-term .

7. Conclusions

IMC concludes from the independent technical review that:

- management's geological and geotechnical mining knowledge and understanding is of a sufficient level to support short, medium and long-term planning as appropriate;
- the mine plans appropriately consider geological and geotechnical factors to minimise mining hazards;
- Xstrata South Africa's mining equipment (either in place or planned in the capital forecasts) is suited to its mine plans and adequate for the production levels forecast;
- chrome and vanadium ore processing and associated ferrochrome and ferrovanadium plants and other infrastructure are capable of continuing to supply appropriate quality products to satisfy the export markets at the forecast volumes and also can supply domestic markets;
- environmental issues are well managed and there are no issues that could materially impede production nor are any prosecutions pending;
- the assumptions used in estimating both capital and operating costs are appropriate and reasonable;
- capital and operating costs used in the financial models reflect the mine plans, development and construction schedules and the forecast production levels;
- the special factors identified by IMC are well understood by management and appropriate action to mitigate these risks is being taken. Further, the mine plans and cost forecasts appropriately account for these risks; and
- management operate a clear and comprehensive management accounting system and are able to monitor and forecast production and cost parameters.

IMC has estimated the value of Xstrata South Africa's chrome and vanadium operations as US$646 million and US$195 million respectively, assuming a real discount rate of 9.5%, ZAR/US$ exchange rate, product prices and cost and production forecasts which are soundly based.

Yours faithfully

IMC Mackay and Schnellmann

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Andrew P. Wells BSc (Hon's), ARSM, MIMM, CEng

Director

Annex A – Qualifications of Consultants

A. Wells – Project Manager & Vanadium Team Leader – B.Sc. (Eng.) (Hon's) Mineral Technology 1976 – Associate of the Royal School of Mines, Imperial College, London – Member of the Institution of Mining and Metallurgy, Chartered Engineer – Certified Internal Quality Auditor for ISO 9000 & ISO 10011

25 years experience in metalliferous mining and processing, including four in chrome and vanadium.

**** G. Bowyer – Geologist – Vanadium – BSc (Geology) London University 1969 – Fellow, Institution of Mining and Chartered Engineer – Fellow, Australasian Institute of Mining and Metallurgy***

30 years of experience in the mineral industry including the preparation of Competent Persons' Reports, orebody modelling, mineral resources and ore reserves estimations; feasibility studies and technical audits.

**** K. Gahan – Mining Engineer – Vanadium – BSc Mining Engineering 1961 – Associate Camborne School of Mines (ACSM) – Fellow, S.A. Institute Mining and Metallurgy – S.A. Mine Manager's Certificate (Fiery Mines)***

40 years in the minerals industry with experience in major minerals including iron ore, copper, zinc, nickel, coal, vanadium, gold and diamonds.

**** C. Streets – Minerals Economist – Associateship (First Class) of the Camborne School of Metalliferous Mining 1962 – Chartered Engineer – Fellow of the Institution of Mining and Metallurgy***

40 years experience in the international mining industry, with previous assignments including technical audits of both chrome and vanadium operations.

**** J. Hawke – Infrastructure, Transport & Chrome Team Leader – Higher National Certificate – Mechanical Engineering – Chartered Engineer – Member of the Institution of Mechanical Engineers – Member of the Institute of Mining and Metallurgy***

More than 35 year's experience in the base metal mining and metallurgical extraction industry.

**** S. Henley – Geologist – Chrome – BSc 1st class Honours Geology, Nottingham – PhD Geology, Nottingham – Member Institution of Mining and Metallurgy, Chartered Engineer – Fellow Geological Society of London – Charter Member International Association for Mathematical Geology***

30 years experience in the minerals industry as a geologist/geostatistician conducting resource evaluations throughout the world including major chrome mines in Kazakhstan.

**** J. Bennett – Mining Engineer – Chrome – BSc Engineering in Mining (Honours) from Royal School of Mines, London – Associate of the Royal School of Mines – Member Institution of Mining and Metallurgy – Chartered Engineer***

Over 35 years in the mining industry including: management of production operations, design, feasibility and construction management of new operations, both open pit and underground.

**** P. O'Shaughnessy – Process Engineer – Chrome – Associate of the Royal School of Mines, Imperial College, London – B.Sc. (Eng.) (Hon's) Metallurgical Engineering – Member of the Institution of Mining and Metallurgy, Chartered Engineer – Chartered Engineer (UK) – European Engineer Group 1 Feani Register Europe – Professional Engineer, Ontario Canada – Professional Engineer , New York, US***

25 years in operations, engineering design, consulting and as plant manager within the ferroalloy industry.

In addition, the following consultants performed desk based studies:

M. Howard – Environmental Specialist – B.Sc. (Honours), Geography and Biology, University of North London

20 years experience as an environmentalist with assignments including: environmental impact assessments, design of artificial wetlands for effluent treatment, development of catchment management plans, environmental risk assessments and development of water management systems for mines.

A. Cross – Smelter Expert and Peer Reviewer – BSc. Chemical Engineering – Member of the Institute of Chemical Engineers

28 years of experience in metallurgical and process industries including pyrometallurgy, smelter gas collection and treatment, hydrometallurgy and sulphuric acid manufacture.

B. Lott – Project Director – MA (1st Class Honours), Mechanical Sciences – Chartered Engineer – Member, Institution of Mechanical Engineers – Member, Institute of Management – Fellow, Institute of Directors – Fellow, Institution of Mining and Metallurgy – Industrial Management Certificate

Over 30 years' international experience in the engineering and management of mining and process plant projects including several years' residence in Australia, US, Zambia and Germany.

Note: * People who inspected operations.

Annex B – Scope of work/limitations and exclusions/materiality

Scope of work

IMC carried out the following scope of work for the Competent Person's Report (CPR):

- Introductory meetings with Xstrata South Africa chrome and vanadium directors and management to understand the business plan;
- Site visits and collection of data. Consultants marked * in Annex A visited the assets relevant to their disciplines and inspected:
  - geological maps and plans;
  - mining operations including equipment;
  - infrastructure including transport systems, maintenance facilities;
  - chrome ore processing plants;
  - ferrochrome furnaces;
  - vanadium processing plants; and
  - ferrovanadium production facility.
- At the chrome mines a comprehensive data-room was established to provide the chrome team with the necessary documentation to examine. At the vanadium operations, documentation was provided by each site. In both cases this included:
  - monthly production and cost reports;
  - budgets; and
  - feasibility studies.
- At each asset a technical review was undertaken, which included the following elements:
  - data suitability;
  - geology and mining hazards;
  - resources and reserves;
  - chrome and vanadium mining operations;
  - chrome ore processing to concentrate;
  - chrome concentrate smelting to ferrochrome;
  - vanadium ore processing to vanadium pentoxide;
  - vanadium pentoxide processing to ferrovanadium;
  - environmental issues (desktop review of documentation);
  - capital and operating costs;
  - review of budget forecasts; and
  - valuation of reserves.

The CPR covers Xstrata South Africa's chrome and vanadium operations that are materially relevant to the valuation of the reserves estimated according to the JORC Code. IMC produced its valuation model based on actual 2001 production data and Xstrata South Africa 2002 to 2004 budget data.

Limitations and exclusions

The CPR is based mainly on information provided by Xstrata South Africa, made available to IMC before 17 December 2001. Xstrata AG has advised IMC of any material change, or event likely to cause material change to its budgets as of 4 March 2002.

The work undertaken for this report is a technical review of the information obtained by IMC together with such inspections as IMC considered appropriate. It specifically excludes all aspect of legal issues, commercial and financial matters, land titles, agreement, excepting where such aspects may directly influence technical, operational or cost issues.

IMC has not independently forecast product prices to be achieved, relying rather on independent forecasts and discussions with management.

Materiality

The chrome and vanadium mining, processing and smelting assets were examined to identify any significant technical and operating risks. Where risks for an asset are likely to impact on the forecast of production, capital and operating cost by less than 10%, they are not considered material.

Figure 2-1 – Geology of the Bushveld Complex, East and West, indicating locations of the principal mines

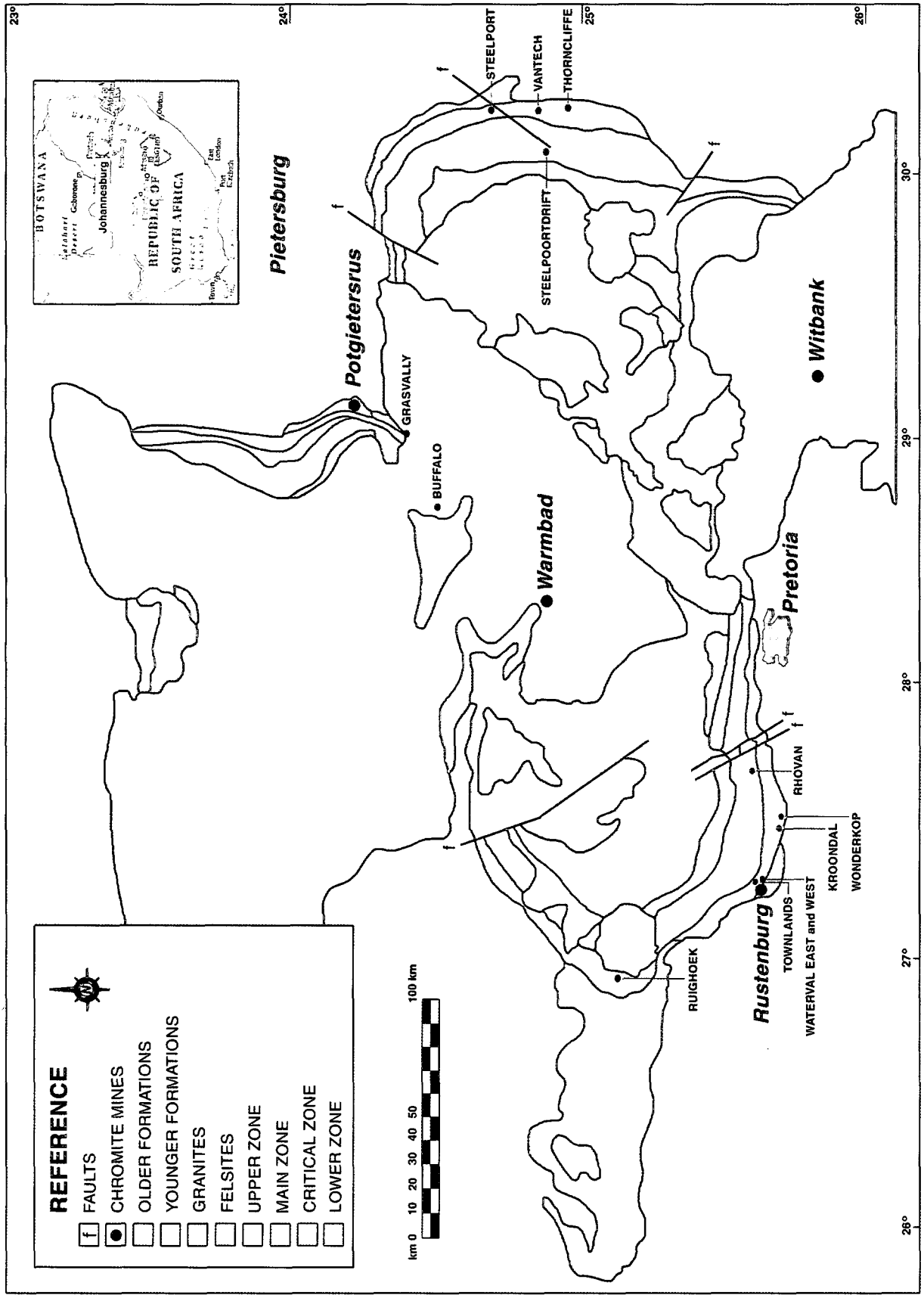


Figure 3-1 – Plan showing the relationship between Waterval East and Waterval West mines

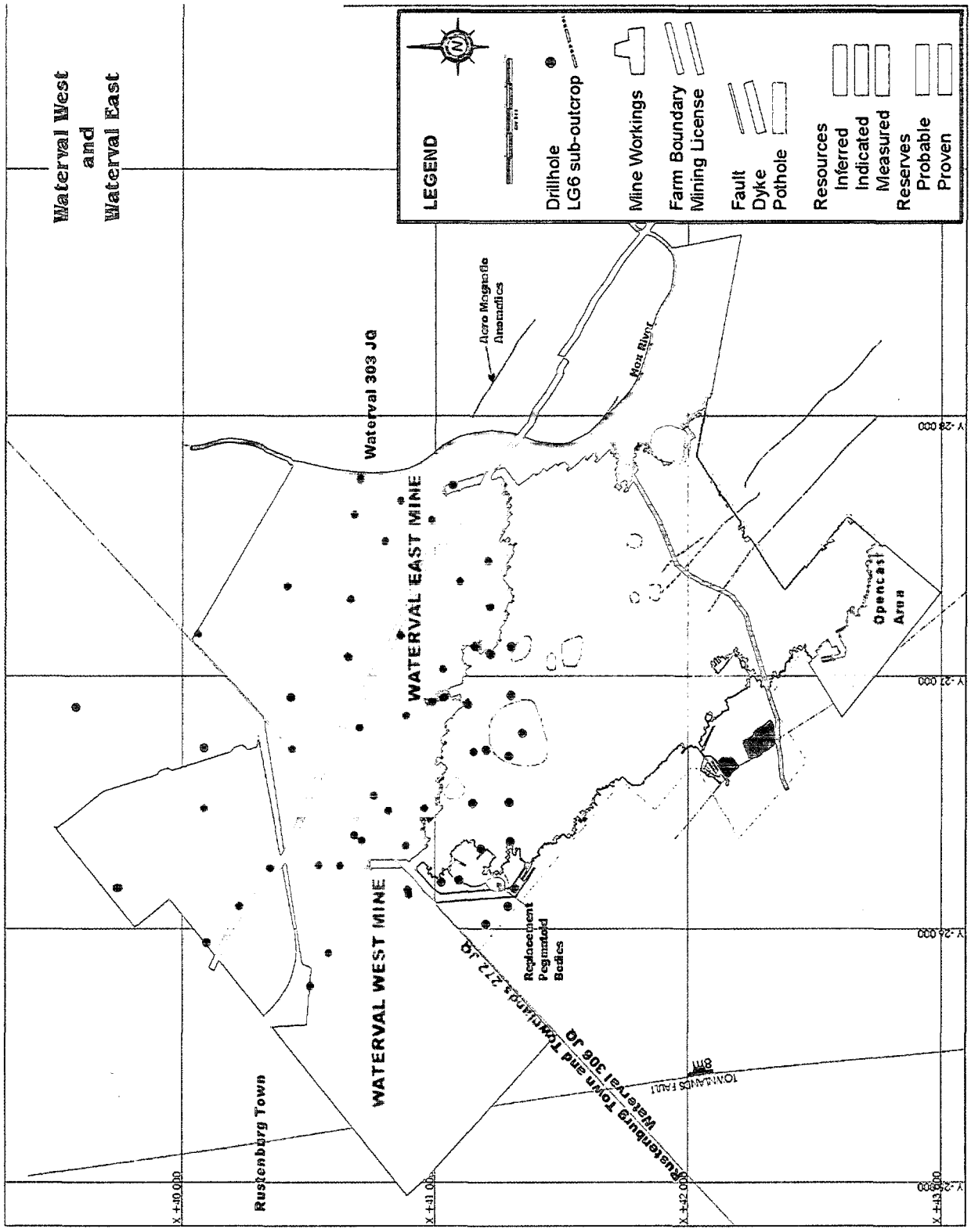


Figure 3-2 – The area initially to be exploited by Waterval West mine (Townland Area B2)

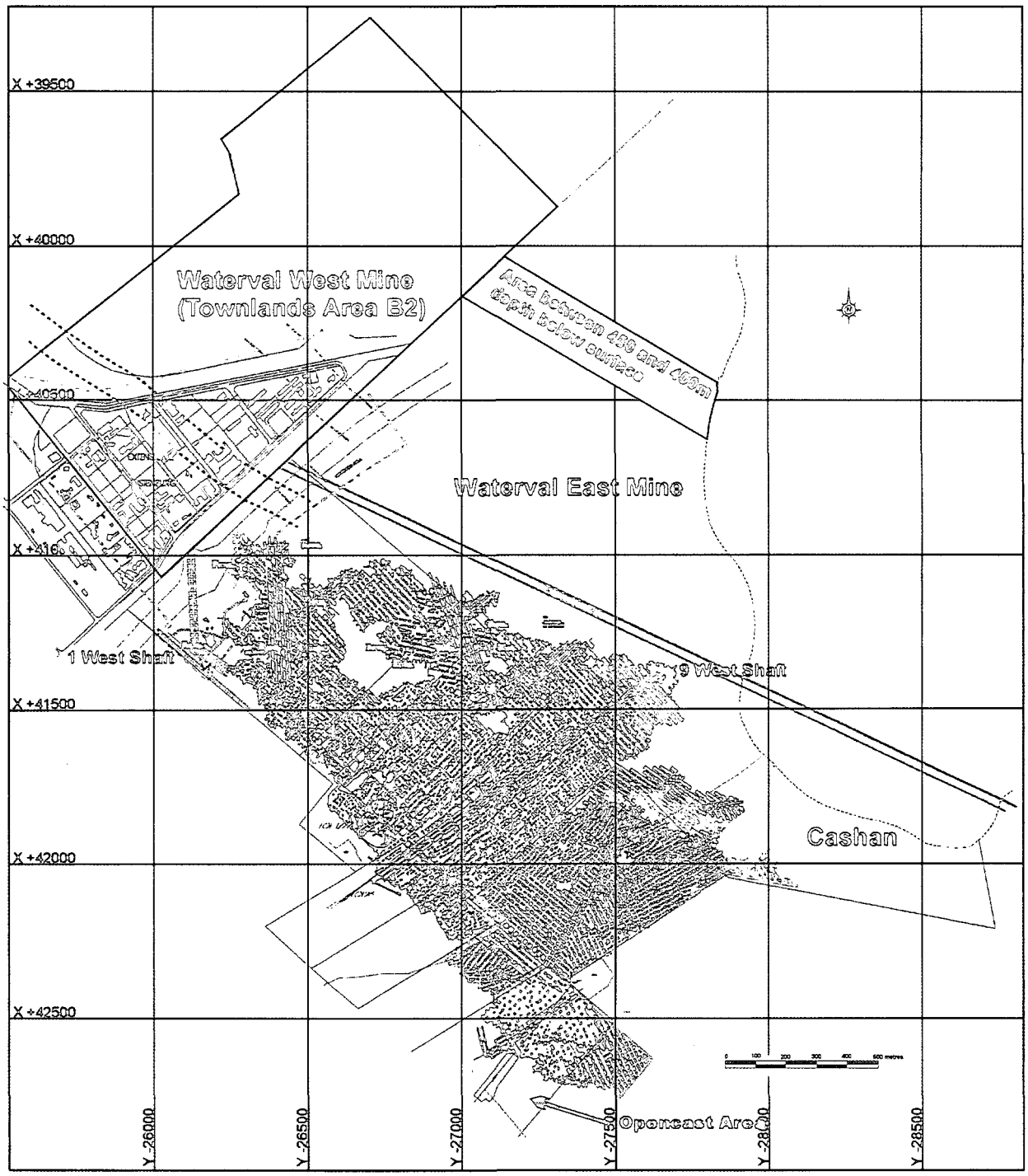


Figure 3-3 – Location map of the Thorncliffe and Vantech mines in the Eastern Bushveld

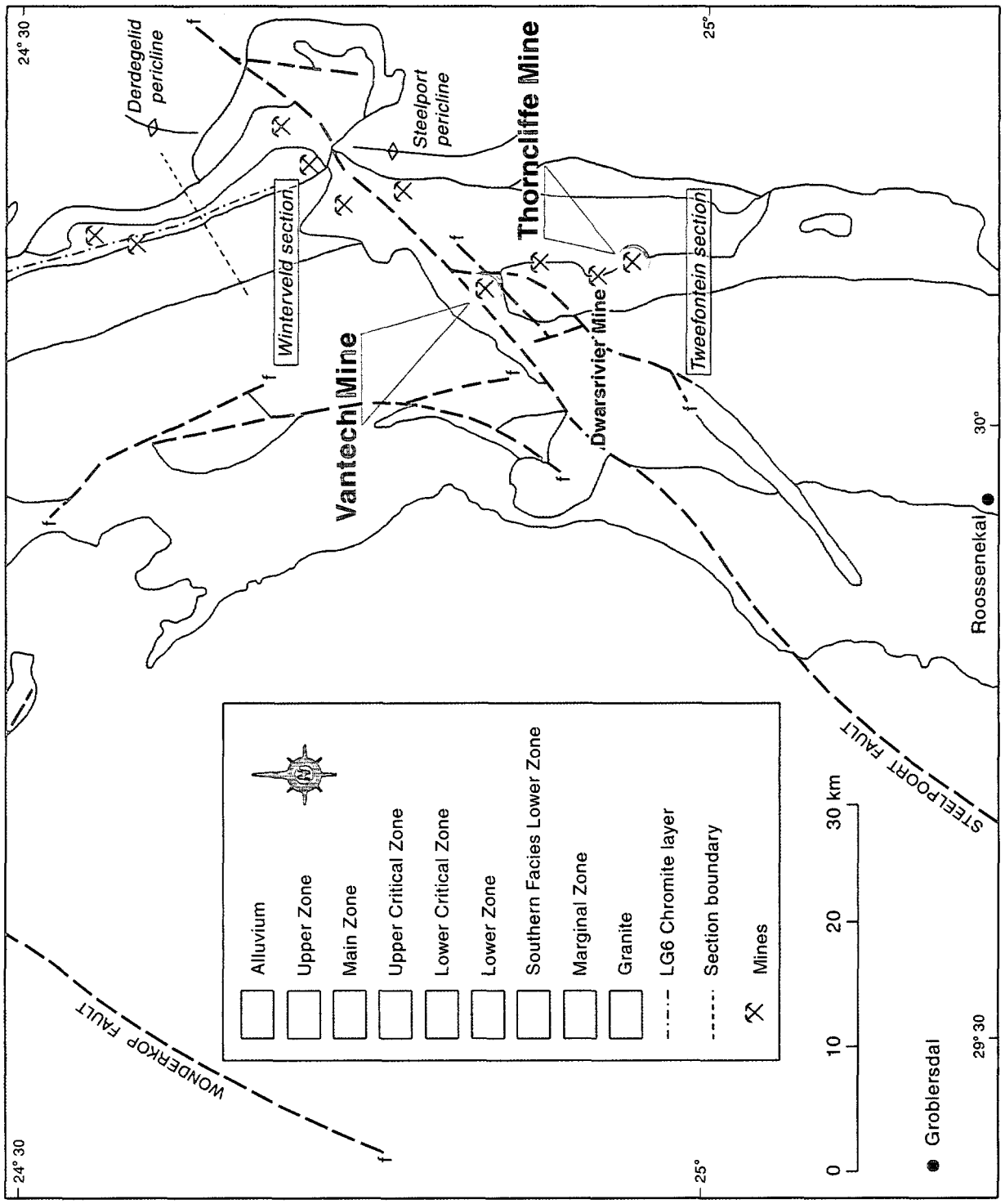


Figure 3-4 – Geology of the Western Bushveld area

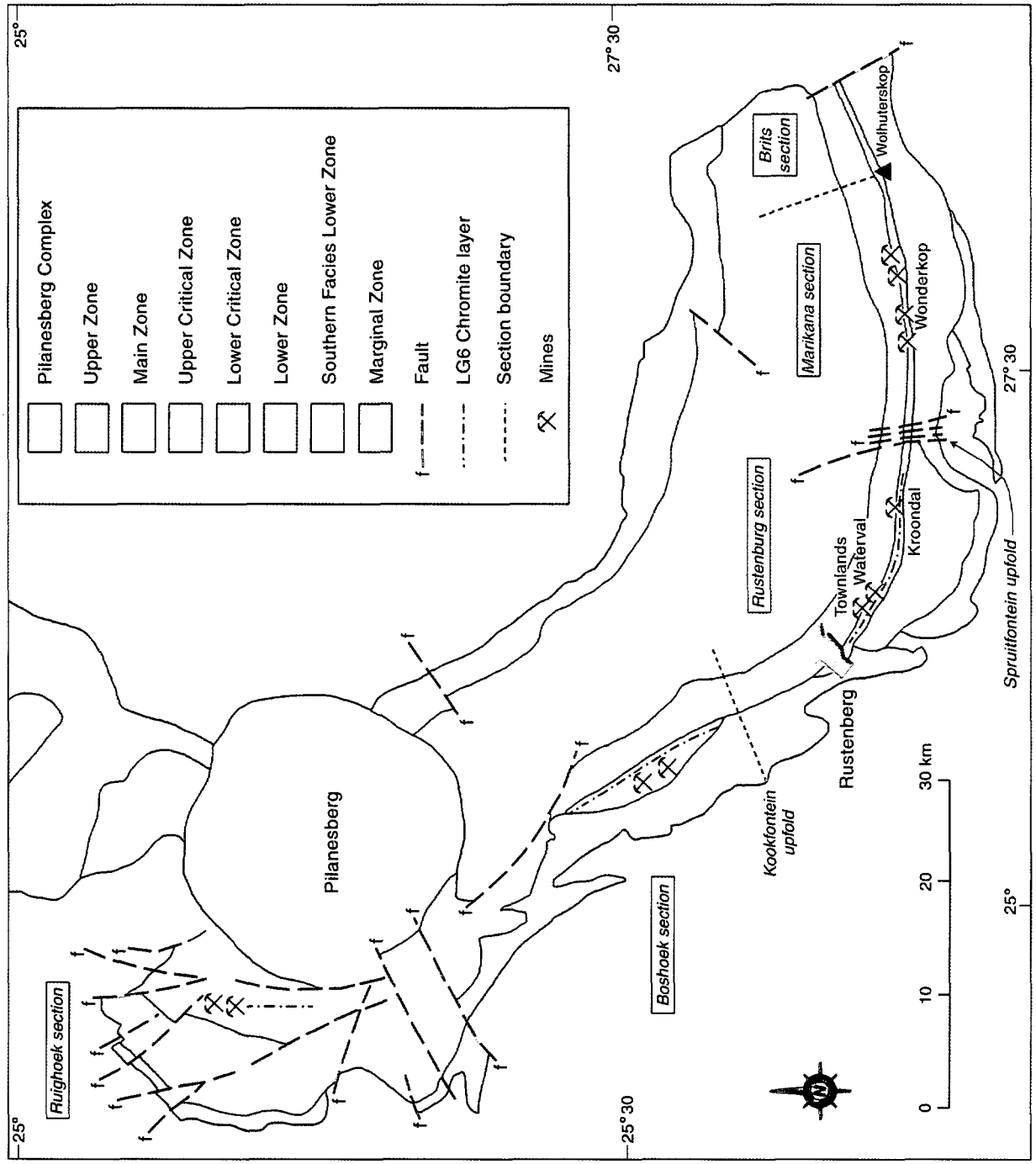


Figure 3-5 -Locations of chrome mines in the southwestern Bushveld area

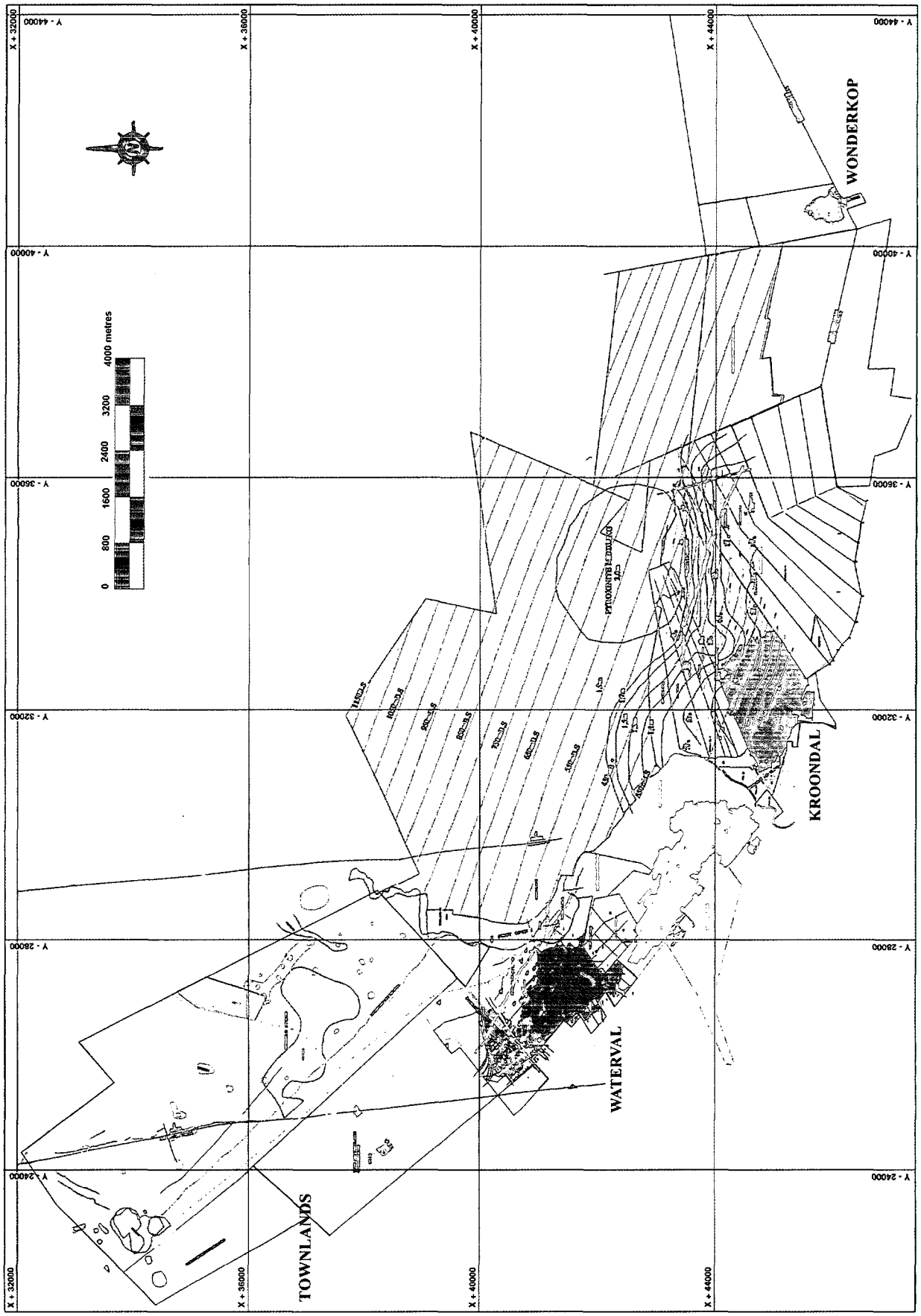


Figure 3-6 – Townlands lease areas, indicating proposed drillhole locations to establish resources in the Townlands A area

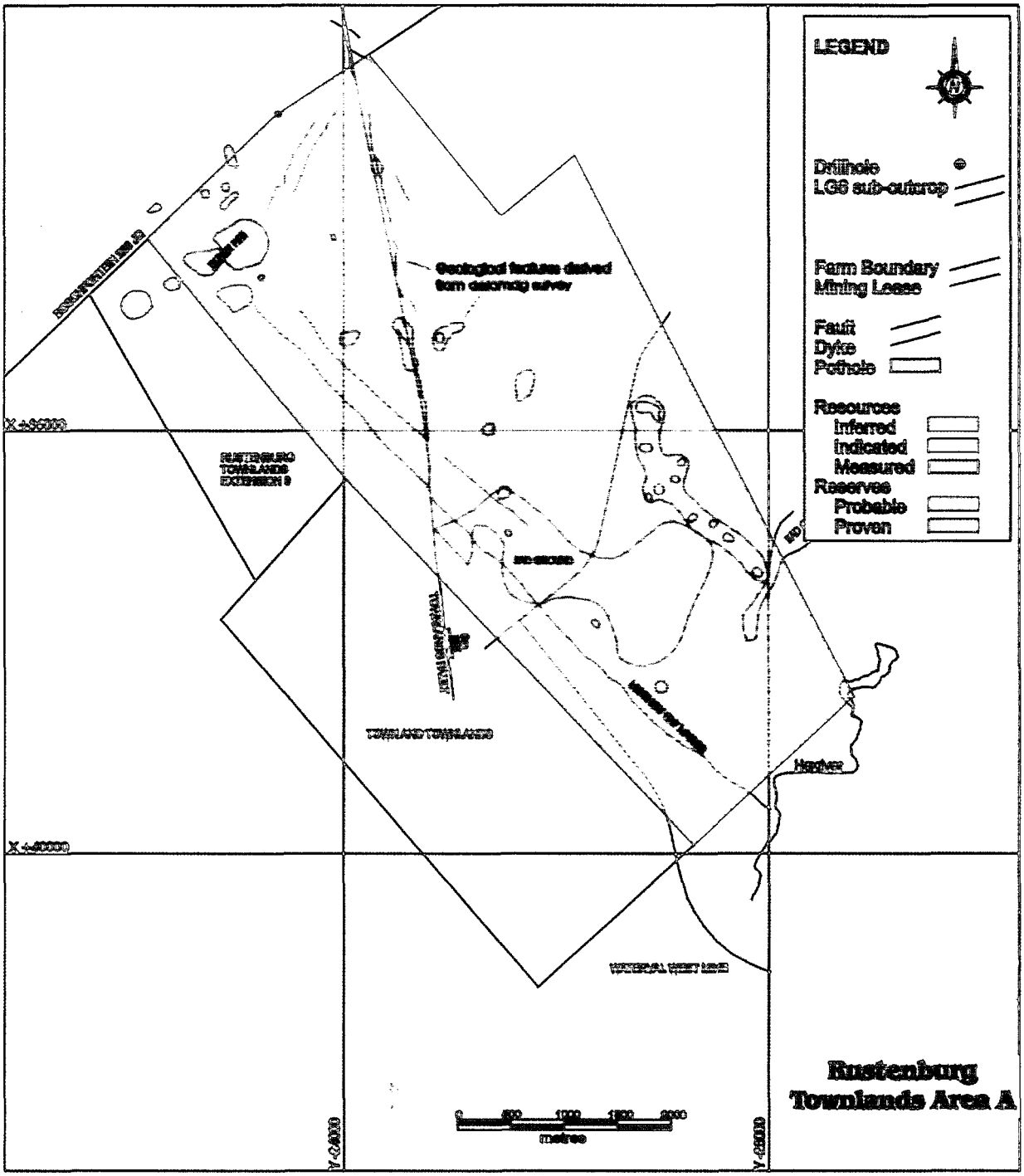


Figure 3-7 – Kroondal mine area plan showing the lease areas being exploited through the mine

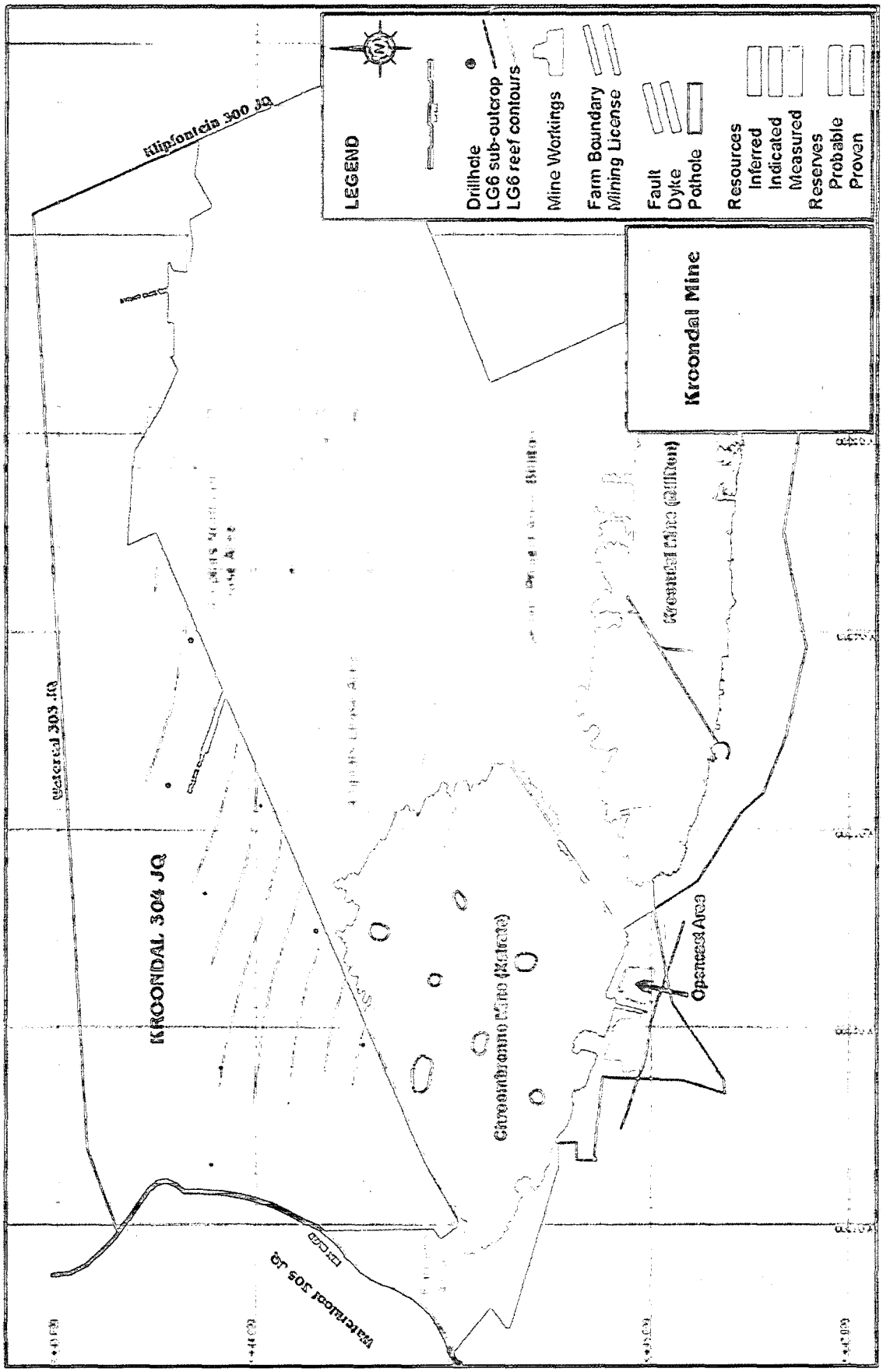


Figure 3-8 – Chrome holdings in Thorncliffe 374KT and adjacent farms

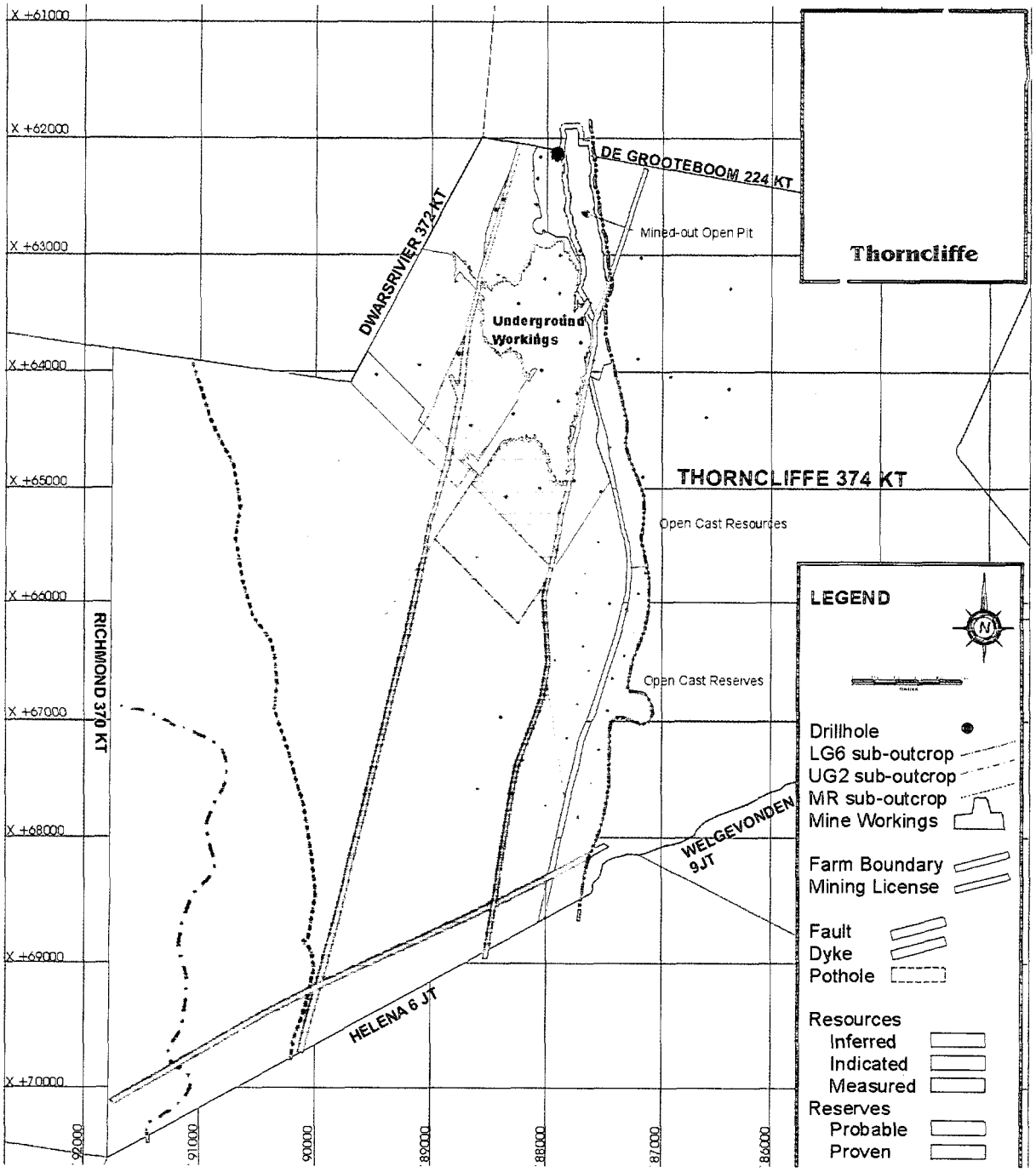


Figure 5-1 – Rhovan mining licence

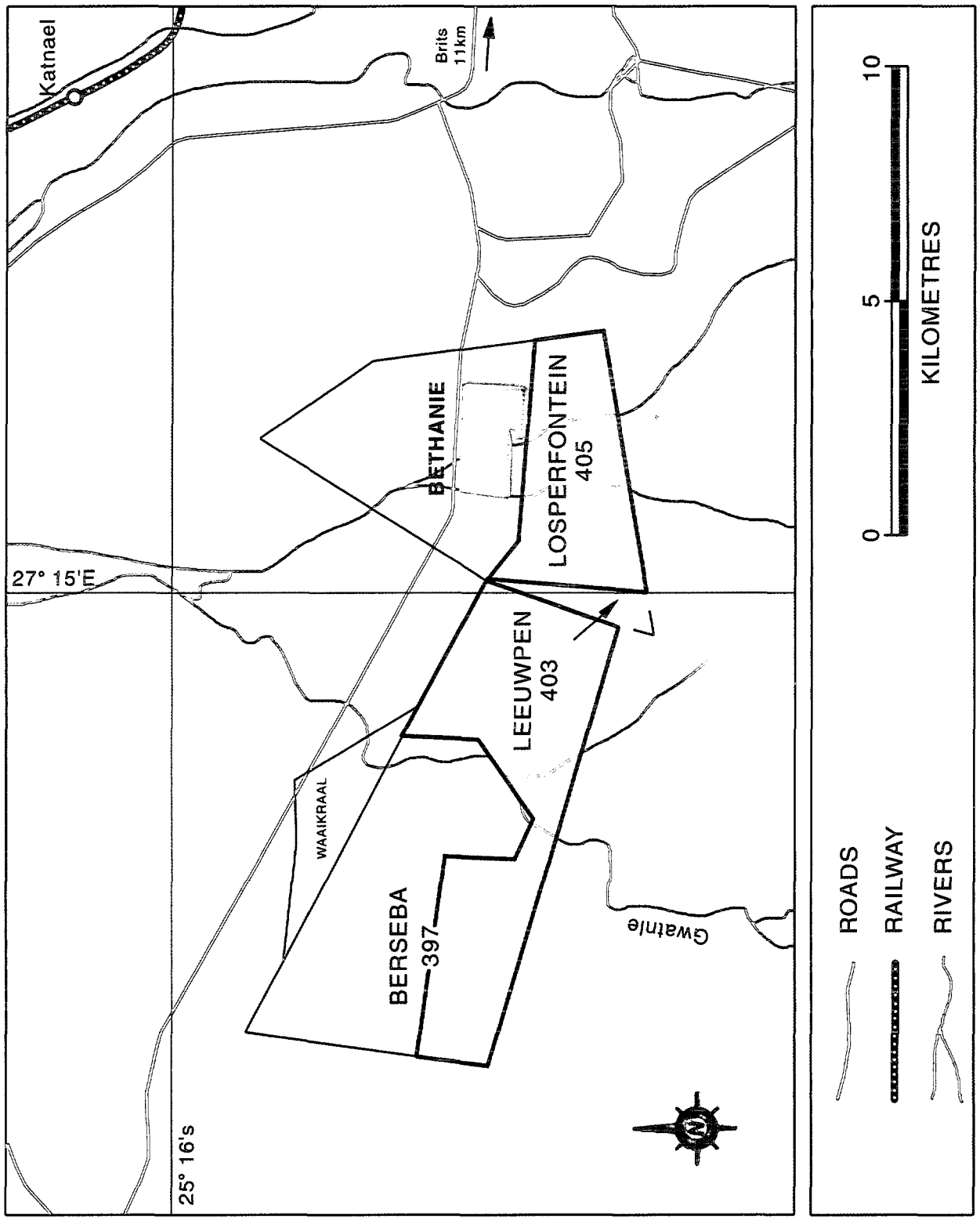


Figure 5-2 – Rhovan Opencast reserves and resources

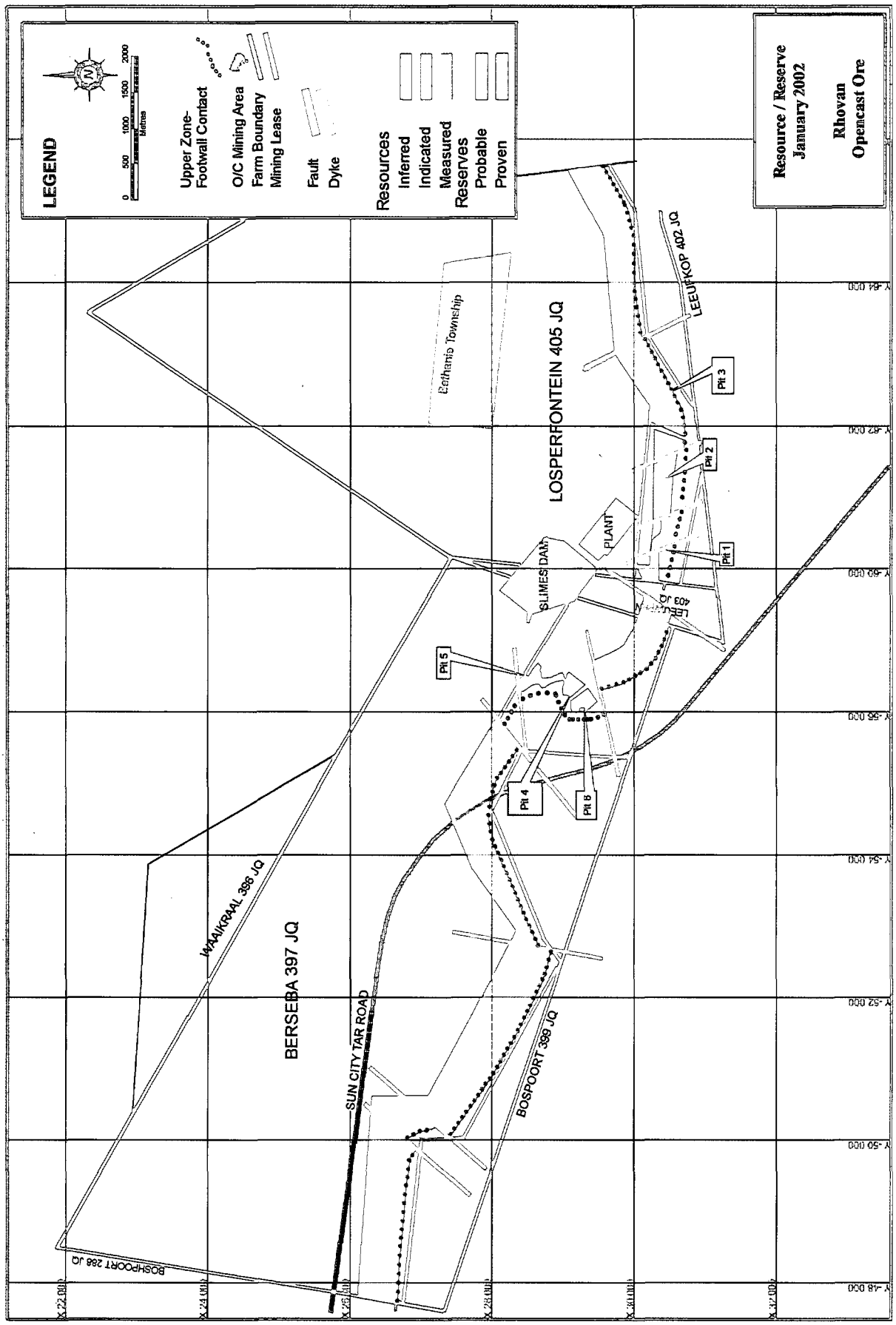
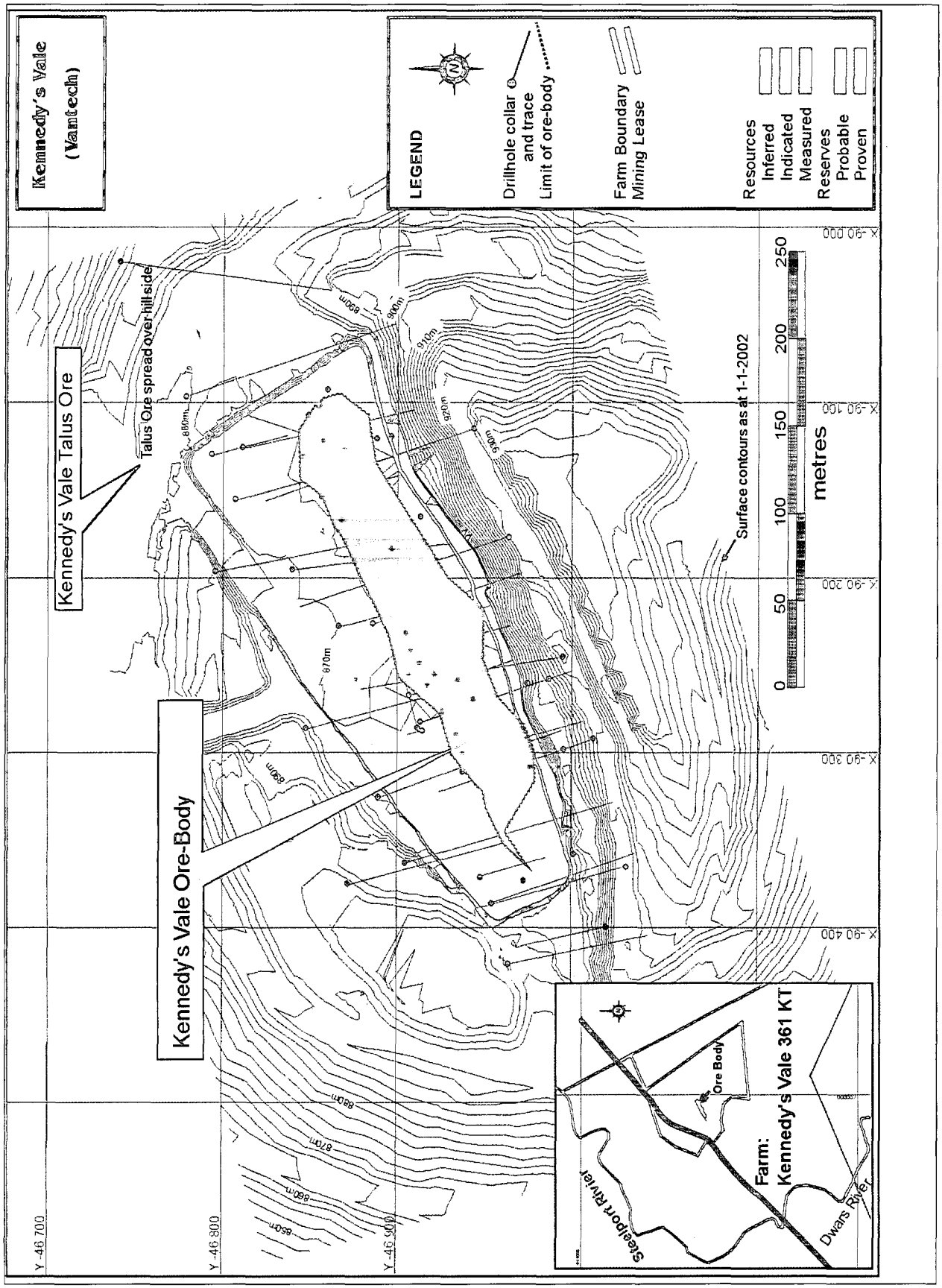


Figure 5-4 – Kennedy's Vale reserves



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Competent person's report for the Australian Vanadium assets held by Vanadium Australia Pty Ltd

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BFP Consultants Pty Ltd
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Perth WA 6000

20 March 2002

The Directors
Xstrata plc
Bahnhofstrasse 2
6301 Zug
Switzerland

J.P. Morgan plc
125 London Wall
London EC2Y 5AJ
United Kingdom

Dear Sirs

COMPETENT PERSON'S REPORT FOR THE AUSTRALIAN VANADIUM ASSETS HELD BY VANADIUM AUSTRALIA PTY LTD

1. Introduction

1.1 Purpose of report

This report has been prepared by BFP Consultants Pty Ltd ("BFP") for inclusion in listing particulars (the "Listing Particulars") to be published by Xstrata plc (the "Company") in connection with a global offer of ordinary shares in the Company (the "Global Offer") and the proposed admission of the ordinary shares of the Company to the Official List of the UK Listing Authority (the "UKLA") and the admission of such shares to trading on the London Stock Exchange plc's market for listed securities.

BFP was instructed by the directors of the Company to conduct an independent technical review ("ITR") of the Australian vanadium assets operated by Vanadium Australia Pty Ltd ("VAPL"). This report, which summarises the findings of our review, has been prepared in order to satisfy the requirements of a competent person's report as set out in Chapter 19 of the listing rules of the UKLA.

BFP has conducted its review in accordance with the requirements of Chapter 19 of the listing rules of the UKLA and, with respect of resources and reserves, the "Australasian Code for Reporting Mineral Resources and Reserves" (September 1999), published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia (the "JORC Code"). The JORC Code establishes the nature of evidence required to ensure compliance with the code. The review was conducted with regard to the JORC Code because it is internationally recognised. In this report, all reserve and resource estimates are reported in accordance with the JORC Code and have been substantiated by evidence obtained from site visits and observations. They are supported by details of drilling results, analyses, and other evidence and take account of all relevant information supplied to us by VAPL's management and the Directors of the Company. In accordance with Chapter 19 of the listing rules of the UKLA, VAPL's resources have not been valued.

1.2 Capability and independence

This report was prepared on behalf of BFP by the signatory to this report and BFP's sub-consultants, details of whose qualifications and experience are set out in Annex A to this report.

BFP operates as an independent technical consultant providing resource assessment and evaluation, engineering and geotechnical services to the resource and financial sectors.

BFP will receive professional fees for its preparation of this report. No director or staff member of BFP, or sub-consultants who contributed to this report has any interest in:

- the Company or VAPL;
- the mining assets reviewed; or
- the outcome of the Global Offer.

Drafts of this report were provided to VAPL and the Company for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

1.3 Scope of work/materiality/limitations and exclusions

BFP reviewed the assets in accordance with the scope of work and exclusions and limitations and on the basis of the materiality criteria set out in Annex B to this report.

BFP has independently assessed the assets operated by VAPL by reviewing pertinent data, including resources, reserves, manpower requirements, environmental issues and the life of mine ("LOM") plans relating to productivity, production, operating costs, capital expenditures and revenues. All opinions, findings and conclusions expressed in this report are those of BFP and its sub-consultants.

1.4 Inherent mining risk

Mining, including open pit mining, is carried out in an environment where not all events are predictable. While an effective management team can identify known risks and take measures to mitigate and manage these risks, there is still the possibility of unexpected and unpredictable events occurring. It is not possible therefore to remove totally all risks or state with certainty that an event which could have a material impact on the mine will not occur.

1.5 Glossary of terms

Words and expressions used in this report are defined in Part X of the Listing Particulars.

2. Overview

2.1 Description of assets

The Windimurra vanadium mines and associated infrastructure are situated some 600 kilometres north-east of Perth in Western Australia. The closest town, Mount Magnet, is 80 kilometres north-west of the project and has a population of 650 people. **Figure 1** is a location plan showing the mine in relation to major towns.

The operator of the project is VAPL, which operates the Windimurra Joint Venture as agent for Xstrata Windimurra Pty Ltd ("XWIN") which holds 100% of a participating interest in the joint venture and 60% of the project assets. Windimurra Limited holds 40% of the project assets but is not a participant under the Joint Venture Agreement. Company structures have changed a number of times since the original establishment in 1998 and further changes are expected.

The Windimurra project has experienced significant operating losses since commissioning in 1999.

The losses are primarily due to a historical low in V_2O_5 prices and have been exacerbated by ongoing plant commissioning, minor upgrade requirements and changes to the mining plan.

Production cutbacks have been implemented in recent months to stem losses while V_2O_5 prices remain low. VAPL has developed strategies to improve the plant's metallurgical performance, V_2O_5 production and unit costs. It is intended that these will be implemented once vanadium prices recover.

2.2 Summary of geology

Mineralisation is in the form of vanadiferous magnetite hosted in magnetite gabbros of the Shephards Discordant Zone ("SDZ"). The SDZ is a discordant intrusive within the regional scale Windimurra Complex, comprised of a series of basic to ultrabasic intrusives. Within the magnetite gabbros, vanadium is present in solid solution with iron within the lattice structure of magnetite crystals. Vanadium content varies from 1.4% to 2.1% V_2O_5 and averages 1.7% V_2O_5 in individual magnetite grains.

2.3 Summary of resources and reserves

Exploration for vanadium mineralisation has been undertaken over a thirty-year period, culminating in a successful bankable feasibility study ("BFS") completed in 1998. Exploration techniques have included geological mapping, costeaning and trenching, ground geophysics, percussion and diamond drilling. The exploration programmes indicated the continuous nature of the mineralisation, and defined a large horizon, which hosts significant vanadium mineralisation. BFP has examined the data used in the BFS and is satisfied that the geological, assay, survey and density data, together with the quality control and validation procedures used, are in line with Australian industry standards.

The BFS remains the benchmark for the resources, as no further drilling or geological modelling has been completed in the intervening period. Parameters used in the report comprised a dataset of 225 diamond and reverse circulation ("RC") drill holes with 9,800 sample intervals. Drilling was completed on a semi-regular grid pattern of 50 x 50 metres in the central part of the mineralised zone, expanding to a 100 x 50 metres drill spacing at the northern and southern ends of the mine development area. All samples were sent to Société Génerale de Surveillance ("SGS") Laboratories in Perth for V_2O_5 testing. Control of sample precision and accuracy from the drilling programmes was based upon field duplicates, and the internal standard procedures used by SGS as part of their in-house Quality Assurance-Quality Control ("QA-QC") programme.

The interpolation method used for the resource calculation was multiple indicator kriging, whilst the specific gravity ("SG") was interpolated using the ordinary kriging method. The SG averaged 2.76 tonnes per cubic metre.

The resource statement in the BFS was quoted at a 0.275% V_2O_5 cut-off grade as:

- combined Measured and Indicated Resources: 106.32 million tonnes at 0.47% V_2O_5 in oxidised and unoxidised material, including 68.98 million tonnes at 0.47% V_2O_5 in oxidised material, and 37.34 million tonnes at 0.47% V_2O_5 in unoxidised material.

Figure 4 presents a drillhole plan for the resource.

A check of the resource calculation parameters, including methodology, variography and specific gravity found that the BFS resource was calculated and presented in accordance with the JORC Code. The resource is robust and variations in tonnage and grade from the BFS figures are considered low risk.

There is considerable potential to add to the resources. The deeper drilled RC and diamond holes completed at Windimurra indicated that there is continuing vanadium mineralisation at depth in the fresh rock. In addition, the deposit has not been drilled to exhaustion along the strike to either the north or south. Extensions to the known mineralisation at depth and along some 47 kilometres of strike, (as defined by geological mapping, aeromagnetics and drilling) could allow for at least a further 25 years to be added to the planned 17 year mine life. Limitations on extending the mine life due to a lack of resources is considered a low risk.

The reserves developed from the BFS, quoted at a 0.4% V_2O_5 cutoff grade was:

- Proved Reserves of 55.4 million tonnes at 0.50% V_2O_5, based on the parameters used to calculate the resources, with a dilution factor of 10% and a recovery factor of 95%.

The classification of the mineralisation as Proved Reserves or Measured Resources is equivocal as mining continues, albeit in a subeconomic climate. Xstrata AG, however, reclassified the reserves as resources in order to reflect the detail of the JORC Code and the current economic status of the project. BFP accepts this classification. The BFS was prepared on the basis of vanadium prices significantly above current market prices. The fall in vanadium prices is the main reason for Xstrata AG's reclassification. As such the project is now mining resources and no reserves currently exist.

Since commencement of mining in August 1999, a total of 4.55 million tonnes at 0.51% V_2O_5 has been delivered to plant. Production for 2001 totalled 10.7 million pounds of vanadium pentoxide flake.

2.4 Mines, projects and process facilities

2.4.1 Mining and processing operations

The Windimurra project is considered straightforward and must represent one of the least technically and operationally challenging open pit mining undertakings in Australia.

The deposit is mined by conventional bulk open pit methods using bulldozers, a 100 tonne backhoe excavator and off-road 85 tonne haul trucks. The pit extends to a depth of approximately 40 metres. At any one stage the mine is only likely to have two working faces, albeit full-face, being developed. Together, these faces are only advancing at a rate of 30 metres per month.

Mining takes place on 12 hour shifts, while the crusher operates for 24 hours. Brambles (a contract mining company) is the registered quarry manager in terms of the Western Australian Mines Safety and Inspection Act 1984 and their performance to date is acceptable. It is apparent that the mine has had little difficulty delivering the required tonnage and design grade to the processing plant.

A review of the mine has indicated that geotechnically, the pit is performing well, with no geotechnical issues noted to date that are expected to affect this situation in the future. Some small-scale pit wall failures have occurred. However, these have not had a significant impact on mining operations. Occasional similar failures can be expected during the life of the mine. The mine is considered to have a low geotechnical risk.

Under the current mining programme, there is very low risk of large quantities of groundwater being encountered in the pit. The risk to the processing operations of limited water supply in the short-term is considered low, while the risk in the longer term is considered moderate.

2.4.2 Production levels

The current mine plan is to produce 15 tonnes per day and potentially up to 25 tonnes per day of V_2O_5 in product. The mining plan has varied from that proposed in the BFS, so that selective mining does not occur.

BFP considers the forecasted mining rates and the mining cost forecasts to be achievable. On the basis of this qualitative analysis of risk, the mining venture operations are categorised as low risk. This assessment takes into account the mine's ability to continue to produce at the required production rates and at the operating cost budgeted.

The Windimurra plant is closely allied to the Rhovan and Vantech operations in South Africa. Windimurra follows the standard vanadium pentoxide recovery route of a salt roast of an iron oxide concentrate followed by a water leach and subsequent precipitation of the insoluble ammonium metavanadate ("AMV") in a crystalline form. The AMV is then heated to produce vanadium pentoxide, melted and the flake that has solidified prior to packaging. The quality of V_2O_5 is high and meets all the required chemical specifications. Commercial production from the plant commenced on 20 January 2001.

The major chemicals used on the site, sodium oxalate and ammonium sulphate, are industry by-products from commercial activities in the southwestern portion of the state and are the cheapest source of the commodities.

Similarly, each section of the plant has demonstrated its ability to meet the production design of 20 tonnes per day of V_2O_5.

2.4.3 Management

Based on contact with VAPL management on site and in the head office in Perth, BFP is satisfied that:

- site technical capability is appropriate for the level of technical input required for the operation;
- the expertise of the relevant technical staff as supplied in short curriculum vitae form by VAPL is adequate to the operation;
- contract miners employed by Brambles are competent;
- site and head office management generally understand the key parameters, drivers and risks of the operations; and
- outside consultants are employed to support operational staff when necessary.

2.4.4 Health and safety

The mining and processing operations are geographically compact and it is easy for management to impose a high level of control over entry to the operations. Appropriate signage and entry conditions were apparent. In general, BFP considers that health and safety issues are adequately addressed by management.

2.4.5 Transport

The mine site is serviced by an all-weather road from Mount Magnet, while a bitumen road, the Great Northern Highway, connects Perth and Mount Magnet. Commercial airlines fly into the township four times per week from Perth.

2.5 Environmental issues and management

There are no significant environmental risk areas associated with current operations that would limit the project. Areas presenting moderate environmental risk were identified as:

- dust management and ground and surface water contamination at the calcine tailings dump;
- calcine dust, ground and surface water contamination at the magnetite kiln and hot pan area;
- air emissions from the hot pan wet scrubber and deammoniator; and
- site closure.

It is apparent that VAPL has yet to develop a detailed closure plan that adopts a planned, systematic approach to site closure and incorporates the associated financial provisions and management of potential environmental liabilities. VAPL agreed to the format of the closure plan during the application for environmental approval for development of the Windimurra site. However, the plan is only required to be submitted to the Department of Mineral & Petroleum Resources ("DMPR") six months prior to decommissioning.

It is understood that other than A$2.166 million in performance bonds held by the DMPR for the site, a provisional sum of approximately A$17,000 per month is being accrued for mine site closure costs. BFP considers these provisions to be reasonable to meet expected abandonment and rehabilitation costs.

2.6 Statutory authorisations

2.6.1 Tenure

Location plans for the tenements relating to the Windimurra operations are presented in **Figures 2** and **3**.

The granted tenements are in good standing with respect to the requirements of the DMPR and have rents and rates paid. The exception is Exploration Licence 58/141 where an application for exemption from expenditure has been claimed. There is no reason to expect that the application will be refused. The tenements under application have been approved for grant by the DMPR, but are subject to native title objection. The outcome is expected to be that the tenements will be granted with some reservation of rights and entitlements to the native title objectors.

Owing to the multi-staged acquisition of XWIN's full ownership of the tenements, there are a number of caveats lodged. Caveating of tenement applications is not possible and XWIN is reliant upon the continued financial viability of Precious Metals Australia Limited and upon its contracts with Precious Metals Australia Limited for the ultimate granting and transfer of these tenements currently under application.

Delays in stamping the tenement transfers have occurred. XWIN has a liability for the payment of stamp duty, which is estimated to be in the range of A$800,000 to A$2.2 million.

2.6.2 Pastoral lease

There is no current compensation claim against operation. VAPL has made an offer of approximately A$1 million to the lessees to purchase the station. The offer is still tabled.

It is common practice in Western Australia for pastoral and mining activities to co-exist and the risk to the operation from pastoral activities is considered to be low.

2.7 Costs

Mining costs equate to 10% of the total site cash costs and are considered low risk.

Most of the variations in operating costs relative to the BFS are caused by yield changes. However, other increases in operating costs are in the fields of manpower, gas usage, electrical energy costs and chemical usage. Operating costs are expected to decrease markedly should the plant be expanded to a production rate of 25 tonnes per day of V_2O_5 through the installation of wet high intensity magnetic separators. The assumptions used in estimating capital and operating costs are optimistic but achievable and therefore considered reasonable.

Should early closure of the operation be considered, it is BFP's opinion that there is a risk of damage claims. This may arise from the considerable investment made by some suppliers in the anticipation of a long-term income from that investment.

2.8 Valuation of reserves

There are currently no reserves. The mineralisation being mined is classed as resources and is therefore not valued in accordance with the Chapter 19 requirements.

2.9 Valuation of plant

The plant has been valued at $A5.5 million. The plant is near new and in good condition. However it is a unique operation in Australian mining and many components would have limited use outside the current operation. The Australian market for secondhand plant is also adequately supplied. It is however possible that if available, the plant may be of interest to other vanadium producers within the Group.

2.10 Conclusions

BFP concludes that:

- the geological understanding and defined resources are of sufficient levels to support short, medium and long-term planning;
- the mine plans appropriately reflect the mining and geological understanding and account for predicted mining and operating hazards;
- the mining equipment (either in place or planned in the capital forecasts) is sufficient for the mine plans and can support planned production levels;
- the plant is capable of supplying quality product to satisfy both export and domestic markets;
- environmental issues are regularly reviewed and, apart from mine closure planning provisions, there are no issues which could significantly impede production and there are no prosecutions pending;
- capital and operating costs used in the financial models reflect the mine plan, the expected plant modifications and forecast production levels;

- key risks identified by BFP are understood by management; and
- the drivers of production and costs forecasts are understood by management and are subject to continual management review.

For and on behalf of
BFP Consultants Pty Ltd

Phil Dight
Partner and
Geotechnical Manager, WA

Annex A – Qualifications and Experience

Phil Dight, Partner and Geotechnical Manager, BFP Consultants – Bachelor of Engineering, Master of Engineering Science, Doctor of Philosophy – Fellow of the Australasian Institute of Mining and Metallurgy, Chartered Mining Engineer, Member of Institution of Engineers Australia, Chartered Engineer, Member of the Australian Geomechanics Society, Member of the International Society of Rock Mechanics, Member of the International Association of Engineering Geologists, Member of the SME American Institute of Mining, Metallurgy and Petroleum Engineers, Member Mineral Industry Consultants Association, Chartered Professional Engineer, Chartered Professional (mining)

Phil has responsibility for project management, investigation, interpretation, analysis and design of open pit and underground mines at feasibility and operating levels. Projects have been undertaken for metalliferous, non-metalliferous and coal mines in soft and hard rock. Clients included over 120 companies throughout Australasia, Eastern Europe, North American, and East and West Africa.

Ray Cary – Director and Principal Northwind Resources Pty Ltd; Bachelor of Science with majors in Geology and Physical Chemistry; Fellow of the Australasian Institute of Mining and Metallurgy with Chartered Professional accreditation in Management; Member of the Mineral Industry Consultants Association

Ray has 32 years diverse industry experience. As a consultant he has conducted numerous due diligence, feasibility study and operational reviews for, and independent valuations of, exploration properties and open pit and underground mining operations for gold, base metals and other commodities on behalf of financial institutions, project owners or joint venture partners, prospective acquirers, mining and construction contractors, accounting firms and corporate advisory groups. The geographic spread of these activities extends beyond Australia to the USA, Canada, France, New Zealand, Fiji, Indonesia, Papua New Guinea and West Africa.

Roger Cooper – Senior Geologist BFP Consultants – Bachelor of Science – Member of the Australasian Institute of Mining and Metallurgy, Member of the Australian Institute of Geoscientists, Member of the Geostatistical Association of Australasia

Roger has over 16 years experience in the mining industry, within Australia and overseas. During this period he has undertaken all levels of technical studies, including geological modelling, resource and reserve calculation, feasibility studies and bankable documentation.

Noel Davies – Partner, ATA Environmental – Bachelor of Engineering – Member of Institute of Engineers, Australia

Noel has 23 years engineering experience and more than 20 years experience working in the environmental management field. Noel has held a number of senior management positions in government and in this role has been responsible for the development of Environments Policy and Legislation for Government. Noel has undertaken or directed numerous technical studies in the areas of Environmental Assessment, Environmental auditing and Monitoring both for industry and mining developments.

Steve Hyland – Technical Director Ravensgate Pty Ltd – Bachelor of Science – Manager of the Australasian Institute of Mining and Metallurgy, Member of the Geostatistical Association of Australasia

Steve has over 15 years experience in the mining industry, within Australia and overseas. During this period he has carried out detailed resource modelling and resource calculations for a large range of mining projects covering a number of metalliferous and industrial mineral commodities.

Peter Jansen – Senior Environmental Engineer, ATA Environmental – Bachelor of Engineering – Member of Institute of Engineers, Australia

Peter has over seven years experience in environmental management, with extensive regulatory experience at various Divisions of the Department of Environmental Protection as well as within the iron ore and gold mining industry in the Pilbara and Goldfields regions of Western Australia.

Roger Passmore – Principal Hydrogeologist Rockwater – Bachelor of Science (Hons) – Doctor of Philosophy – Member of Australian Institute of Mining and Metallurgy, Member of Geological Society of Australia, Member of Australian Institute of Geoscientists

Roger has 40 years experience in hydrogeology related to the mining industry. He founded Rockwater and has been Principal Hydrogeologist for 26 years. He has conducted feasibility studies on, implemented and assessed numerous groundwater supply and dewatering operations for mining projects.

Brian Povey – Director and Consultant Metallurgist ProMet Engineers Pty Ltd – Bachelor of Science (Engineering), Master of Business Administration – Chartered Engineer, Chartered Professional (Metallurgy), Fellow of the Australasian Institute of Mining and Metallurgy, Member of the Institution of Mining and Metallurgy

Brian has 30 years experience in the mining industry mainly in Australia. During this period he has worked in senior operating roles in coal, magnetite and iron ore mines. Over the last six years he has worked as a consultant for Kvaerner and ProMet working on project development studies.

Richard Procter – Director, DevMin Pty Ltd – Bachelor of Science (engineering), Master of Business Administration – Chartered Engineer, Member Institution of Mining and Metallurgy, First Class Mine Managers Certificate (Western Australia)

Richard has over 28 years of mining industry experience covering the areas of corporate, contract and operational management, consulting, project development activities encompassing underground and open pit base and precious metal mining, mineral resource

pre-feasibility and bankable feasibility studies. His experience base also includes broad international mining asset exposure including evaluations and valuations, technical and operational audits, due diligence assessments, corporate advice and operational and executive management.

Stella Searston – Director of Bateleur Minerals Pty Ltd – Bachelor of Science, Master of Economic Geology – Member of the Australasian Institute of Mining and Metallurgy, Member of the Australian Institute of Geoscientists, Member of the Geostatistical Association of Australasia

Stella has over 15 years experience as a geologist, initially within field and operational experience in Australia, Africa and Fiji, and later as a consultant. She has extensive experience of tenement issues, statutory requirements, exploration programmes, and database, project and resource assessment.

Godfrey Taylor – Bachelor of Laws and Practitioner of the Supreme Court of Western Australia and the Federal Court of Australia

Mr Taylor is the Senior Partner of the law firm, Taylor Smart and has 28 years experience in commercial law, including corporate, contractual, mining and securities law. Mr Taylor is a director of two mining exploration companies.

John Tompkins – Consultant Estimator – Int Bachelor of Science – Member of the Institute of Industrial Administrators

John has over 45 years experience in the Engineering Industry and has operated as General Manager and owner of a number of Engineering businesses in the UK and Australia. He has worked as a Consultant Estimator to Kvaerner and ProMet over the last five years on ferrous and non ferrous projects.

Annex B – Scope of work/limitations and exclusions/materiality

Scope of work

BFP completed the following work for the CPR:

- introductory meetings with VAPL management and staff to confirm the brief and understand the operation;
- to undertake the ITR, VAPL established a data room at their Perth Office. This data provided the study team with information which formed the basis of the review;
- site visits and collection of data. Key members of the study team visited the Windimurra site and were given presentations on the operations by senior site management and/or consultants. Relevant team members inspected the mining operations, plant and infrastructure and mining equipment;
- technical review and reporting. The key elements of the review included:
  - tenure;
  - native title and pastoral lease issues;
  - exploration;
  - review of data integrity;
  - resources and reserves;
  - assessment of mining and geological hazards;
  - hydrology;
  - environmental issues;
  - mining operations;
  - metallurgical processes;
  - capital and operating costs;
  - review of contracts; and
  - review of financial models.

The CPR covers those of VAPL's assets, which are materially relevant.

Limitations and exclusions

The CPR was based on information provided directly to BFP from VAPL offices and the mine site, or from reports by other consultants whose work is the property of VAPL. The report is based on information made available to BFP prior to 8 January 2002.

The work undertaken for this report is a technical review of the information coupled with such inspections as BFP considered appropriate to prepare the CPR.

The statements and opinions included with this report are given in good faith and in the belief that they are not false, misleading or incomplete. Copies of the relevant sections of this CPR have been provided to VAPL for comment as to errors of fact or misinterpretation, material omissions, or substantive disagreement as to the assumptions herein. Whilst BFP believes its conclusions to be appropriate at the date of this report, many of its assumptions relate to events or actions which have yet to occur. Whilst evidence may be available to support the conclusions presented herein, these could alter materially over time in the light of new information which might affect BFP's views with regards to ore reserves and resources, ore reserve and resource potential, capital and operating costs, commodity prices, exchange rates, markets for mining assets both within Australia and internationally and other relevant factors.

Materiality

The CPR addresses significant operating risks. Where risks for an asset are likely to impact the VAPL LOM plan forecast of production, capital and operating costs by less than 10%, they are not considered significant. Identified risks were reviewed to ensure adequate allowance is provided within the VAPL forecasts to address these risks.

Figure 1 – Windimurra mine and plan

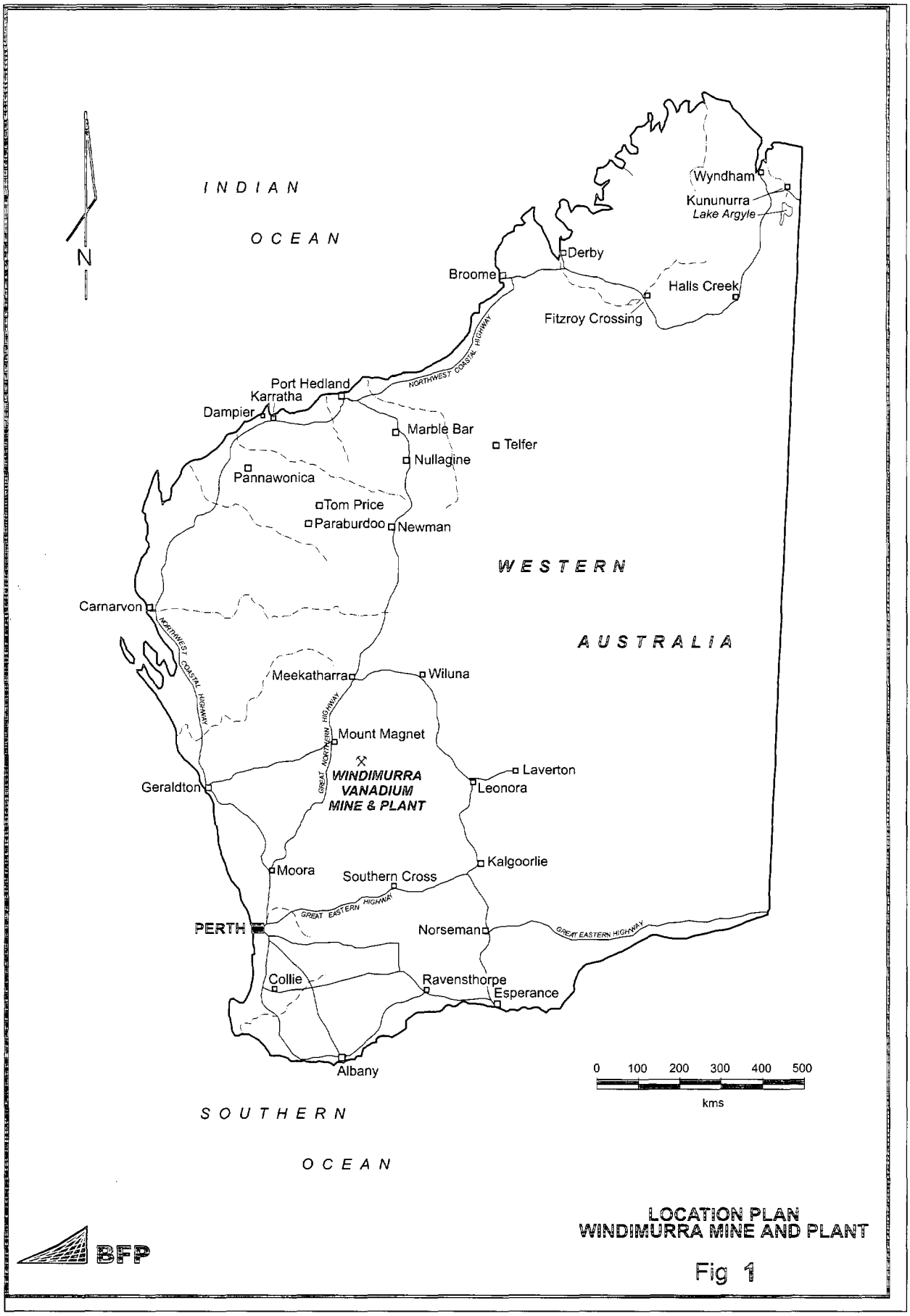


Figure 2 – Windimurra Plant

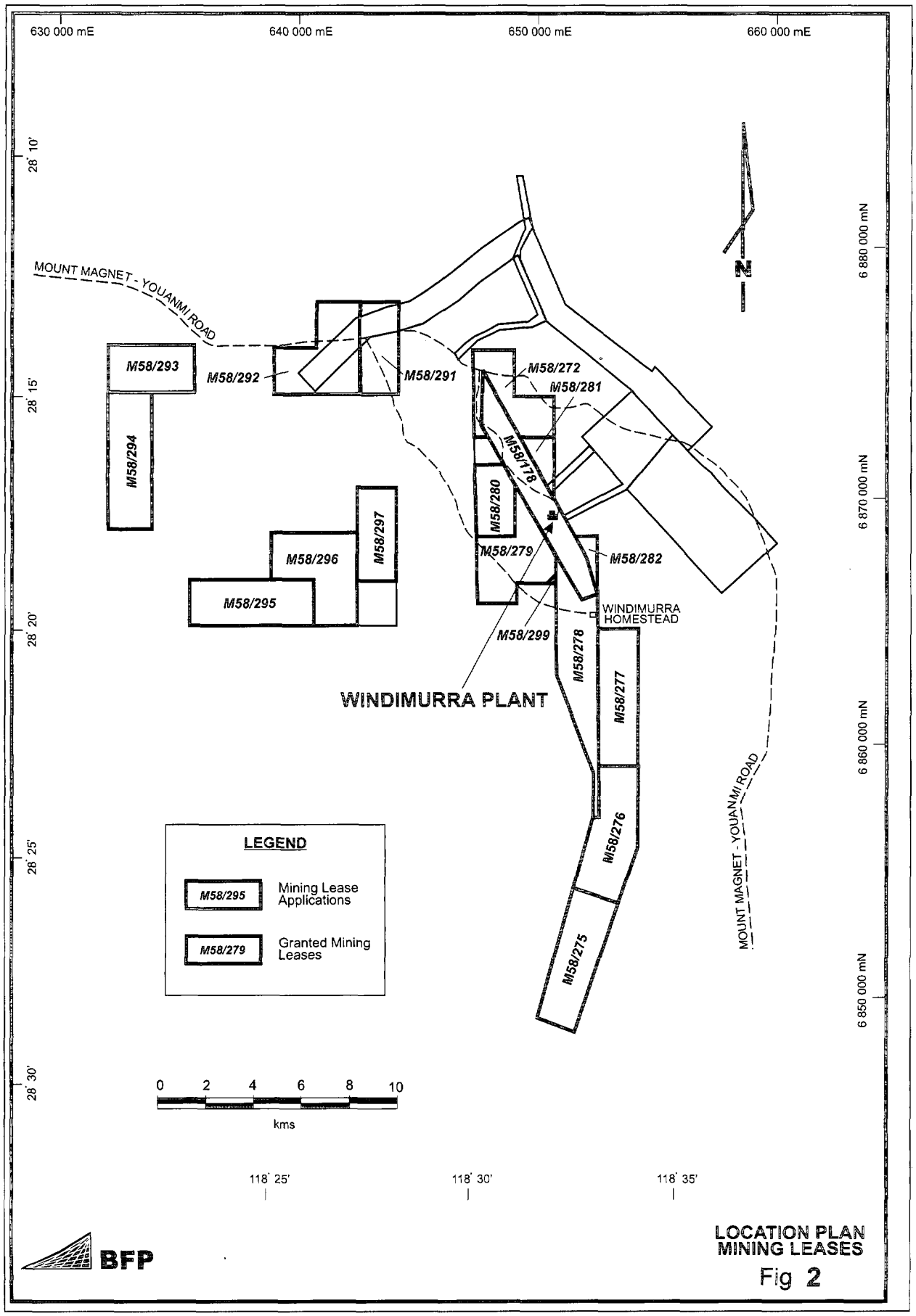


Figure 3 – Windimurra Plant

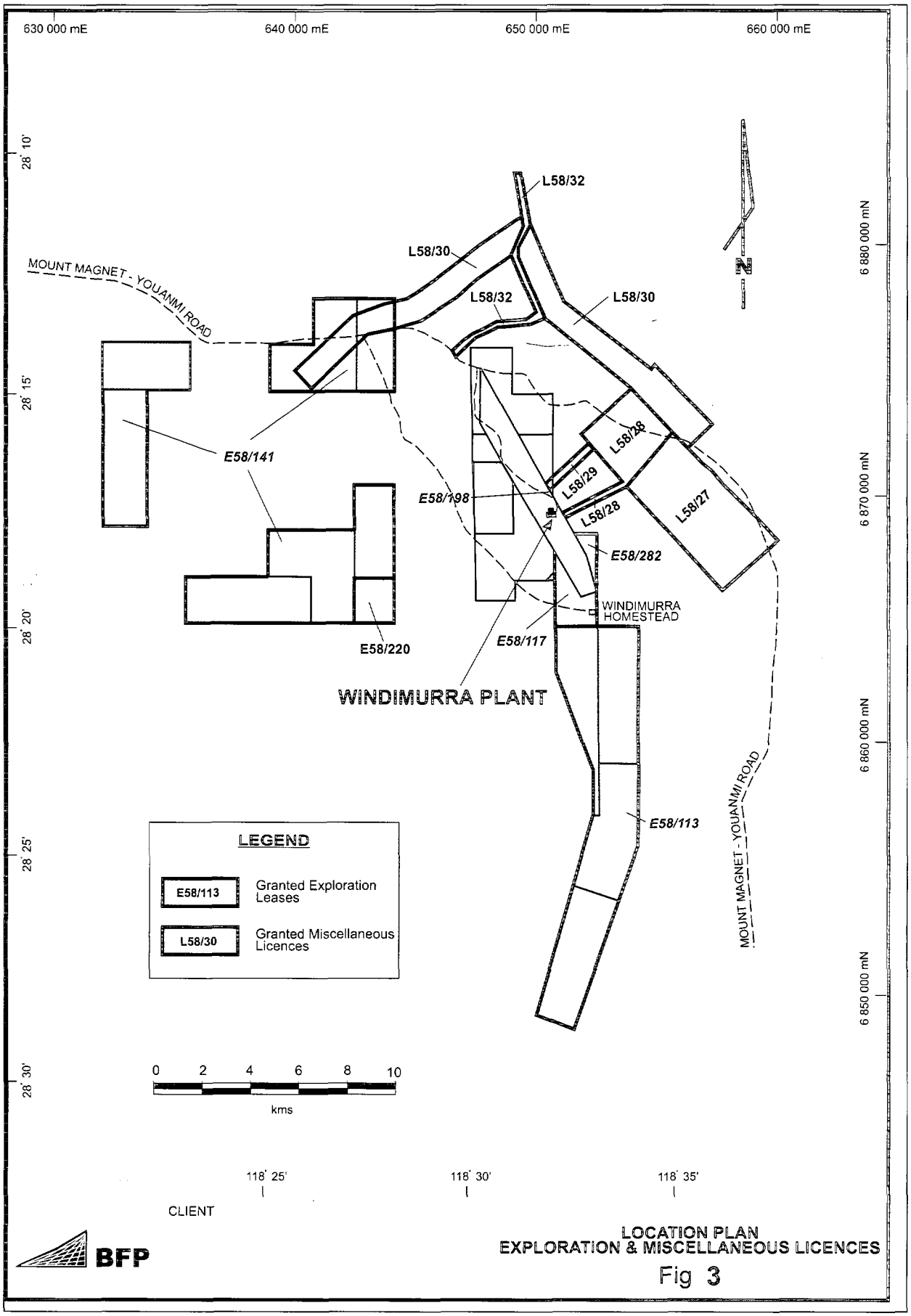
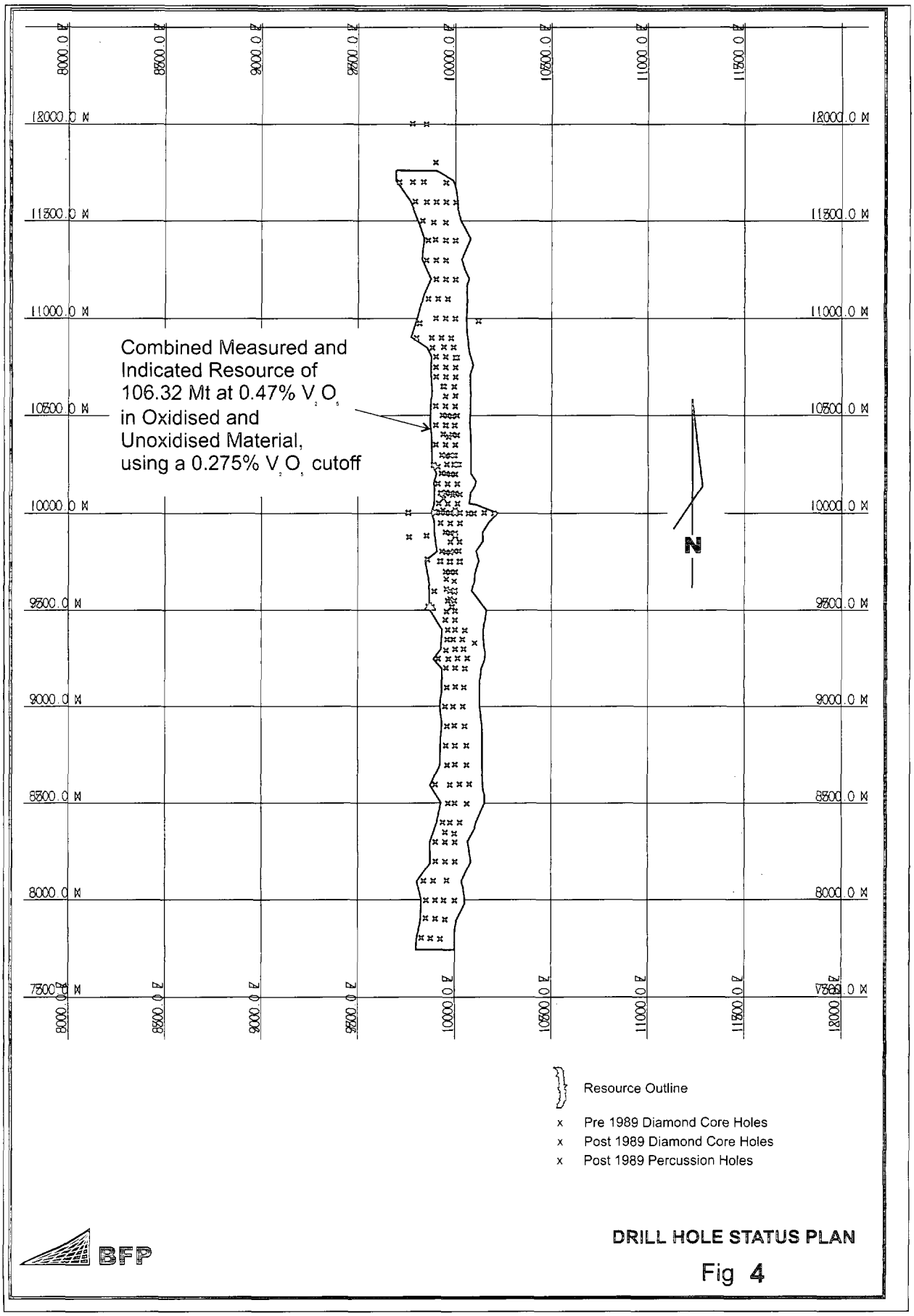


Figure 4 – Windimurra Plant



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TECHNICAL REPORT ON MALOMA COLLIERY LIMITED PREPARED BY XSTRATA SOUTH AFRICA (PTY) LTD

1. Description of assets

This technical report has been prepared by Xstrata South Africa (Pty) Ltd ("Xstrata South Africa") in respect of the Maloma anthracite mine in Swaziland (the "Maloma mine"). The Xstrata AG Group acquired an interest in the Maloma mine for the purpose of supplying the Xstrata AG Group with a potential source of low phosphorous reductant.

The operations consist of:

(a) an abandoned opencast pit at which some rehabilitation has taken place;

(b) an underground mining operation;

(c) a beneficiation plant on the surface; and

(d) various offices and engineering buildings.

Xstrata South Africa acquired a 75% interest in Maloma Collieries Limited ("Maloma") by purchasing, from Koch Petroleum Corporation (USA), all the shares and claims of Associated Mining Engineering Limited ("Associated Mining") effective as of 22 August 2001 for ZAR1000. The balance of Maloma is held on trust for the Swazi Nation.

Associated Mining owns 100% of Carbonex which owns a 75% interest in Maloma. Maloma also has an inter-company loan with Associated Mining of approximately ZAR90 million, which was advanced to Associated Mining by Koch Petroleum Corporation (USA). Xstrata South Africa has acquired this loan together with the shares in Associated Mining.

Furthermore, Xstrata South Africa has made additional loan advances to Maloma to the value of ZAR20 million to fund critical capital expenditure and working capital and repayment of certain loans. These are secured by way of a general notarial bond over the moveable property to the value of ZAR10 million (plus an additional sum of 10% to cover costs and charges). The unsecured investment to date is therefore less than US$1million.

2. Summary of geology

The main coal seam occurs in the lower part of the Vryheid formation of the Ecca group sediments. The seam strikes north to south, parallel to the Lebombo monocline, and dips gently to the east. Except for minor faulting, all tectonic disturbances are related to the intrusion of post-Ecca dolerite dykes and sills.

A number of lineaments were identified and interpreted as surface expressions of dykes. Two major lineaments originate in the north-western corner of the prospect area and trend south-east and south south-east. These are clearly visible features and may have an influence on the planning of the mining operations. A prominent lineament is also present in the centre of the prospect area. It strikes north to south in the southern part and curves to the north-east in the northern part.

A magnetic survey has shown a high degree of complexity in the structure of the area and careful mine planning will be necessary to ensure the successful exploration of the coal seam. Very few coal intersections were found to be burnt and it is expected that the dolerite intrusions will be responsible for only a small loss of mineable coal.

Furthermore, the various surveys and drilling have not detected any major disturbance or faulting which could seriously affect the mining operations.

3. Summary of resources and reserves

No re-assessment of the reserves has been conducted since 1998, when an assessment was conducted by D.W. Thompson, the consulting geologist for Maloma. The following reports are available:

- Geological interpretation of a high-resolution airborne magnetic survey, Maloma coal prospect, Swaziland, Earth and Environmental Technology Division, Atomic Energy Corporation of South Africa Ltd. November 1990 ("1990 assessment"); and
- Maloma Colliery anthracite reserves, July 1998, by D.W. Thompson & Associates (Pty) Ltd and J. C. Fourie (Professional mine surveyor) ("1998 assessment").

Table 1: Comparative of reserve estimates

Reserve evaluation	Recoverable Reserves (Mt)
1990 assessment	11.21
1998 assessment	7.86

There are also Inferred Resources totalling approximately 20 million tonnes.

These reserves and resources have not been audited under the JORC code, which will be undertaken in due course.

Sufficient reserves have been planned and scheduled to maintain operations for in excess of 30 years.

4. Mines and projects

4.1 *Mining methods and equipment*

The mining operations are mechanised and employ the bord and pillar method at a mining rate of between 45,000 and 55,000 tonnes ROM per month. After drilling and blasting, the material is removed by LHD's to the nearest loading point and transferred to the surface storage bin via a conveyor system. A total of 60 faces at three sections are mined per day.

Shale is removed from the ROM material using hand pickers, after which the material is transported by road to the loading point at the beneficiation plant.

Two seams are currently mined: the main seam which is 1.5 metres thick with two partings of varying thickness and a "30 metre marker" seam which is 1.0 metres thick. The two seams are of similar quality and are blended on an *ad hoc* basis through the beneficiation plant. The colliery personnel mine the main seam and a contractor (Remnant Mining CC) mines the marker seam. Payment to the contractor is based on tonnes mined determined by a survey conducted at the end of each month.

Mining takes place at two levels, with Maloma mining the main seam at a depth of 140 metres and a contractor mining the marker seam at a depth of 60 metres.

4.2 *Production levels*

The following table illustrates the coal production history from the Maloma mine. The table has not been extrapolated to include saleable production as the yield rates vary substantially depending on the product and mining area and no historical records are *available regarding saleable production.*

Table 2: Production history

Year	Opencast clean coal[1] (tonnes)	Underground clean coal[1] (tonnes)	Total clean coal[1] (tonnes)
1993	98,350	-	98,350
1994	299,751	-	299,751
1995	-	37,835	37,835
1996	-	127,069	127,069
1997	-	196,612	196,612
1998	-	414,189	414,189
1999	-	450,017	450,017
2000	43,148	351,151	394,299
2001	-	313,272	313,272

(1) Clean coal is coal with the mined waste band removed. The waste band represents approximately 25% of ROM, therefore, clean coal as a generalisation represents 75% of ROM coal.

4.3 *Management*

The previous General Manager at Maloma was retained on a contract basis. New Mining, Administration and Washing Plant Managers have been recruited and have been in place since December 2001. The balance of the workforce was retained from the previous ownership.

4.4 *Health and safety*

Safety

The mine is operated in accordance with the Swaziland Mines and Quarries Machinery and Safety Proclamations and Regulations of 1969 (LN No. 66 of 1969). In addition a set of mine rules and standards are used as guidelines to conduct operations.

In September 2001, the mine commenced with a Risk Assessment Programme and the compilation of Codes of Practices (C.O.P.) in conformation with the Mines and Works Act of South Africa after a methane explosion at the mine.

Progress to date :

C.O.P. to combat rockfalls	approximately 60% complete
C.O.P. for environmental control	approximately 90% complete
C.O.P. for prevention of explosions	approximately 95% complete
C.O.P for lockouts	approximately 50% complete

Prior to Xstrata South Africa acquiring the mine it had a reasonable safety record during its operating history until July 2001 when a methane explosion occurred, in which four people sustained fatal injuries. The finding of the Commissioner of Inquiry pointed to the cause of the accident as human error. Over and above this incident three other fatal accidents were reported during the 8.5 years of operations at Maloma.

Health

In January 2002, a programme commenced to establish a medical history for every employee through the clinic at Ubombo Ranches. The intention is to establish a health surveillance system, which will conform with the Mines Health and Safety Act guidelines in South Africa.

4.5 Coal processing

The feed to the beneficiation plant goes through a fixed grizzly, which feeds, via a chain feeder, onto a conveyor belt. The anthracite goes through various crushing and screening stages before being fed to the beneficiation plant. Beneficiation takes place via cyclones and a spiral plant. Magnetite is removed and recycled by a magnetic separator.

Plant capacity is rated at 60,000 tonnes ROM per month but is currently operating at 45,000 to 50,000 tonnes ROM per month.

At current levels of operation, saleable production is at a rate of 24,000 tonnes per month.

4.6 Transport to customer

Contractors transport ROM coal from the mine to a railway siding and to the benefication plant.

The siding is situated approximately 25 kilometres from the Maloma mine.

An approximate 5 kilometre portion of the road is the responsibility of the mine and the remainder of the road (20 kilometres) is the responsibility of the Swaziland Government.

The equipment at the siding is in a fair condition. Approximately 20,000 tonnes per month is delivered by rail and 4,000 tonnes delivered by road transportation.

5. Environmental issues and management

The main potential environmental issues that relate to the Maloma mine concern:

- rehabilitation of old open cast pits;
- water supply;
- slimes dams;
- dust; and
- mining methods.

An environmental liability assessment was conducted by Steffen, Robertsen, Kirsten Consulting Engineers (SRK) in 1995. The following recommendations were highlighted by the report as a matter of good practice.

It is required that a rehabilitation plan is submitted and that a fund is created for the rehabilitation of the old workings. Discussions with the various departments started some years ago, but no progress was made, and to date, no fund has been provided for.

A provision account has been opened (in 2002) to provide for rehabilitation at the rate of ZAR0.50 per saleable tonne.

Farmsteads utilising ground water from the old workings further complicate rehabilitation. The water was shown to be unaffected by the mining operations.

Currently water supply is sufficient to meet the mine's needs. As mining continues and more dyke/fault intersections are exposed, ground water inflow will increase. Currently ground water inflow is well managed and does not present any problems.

No water balance exists, but water consumption is considered to be well controlled. No outflow from the mine could be detected other than the seepage from the slimes dams.

Two large slimes dams are situated on site. One dam has been closed and a third dam is currently being planned.

6. Statutory authorisations

A mining lease was granted in 1992 by His Majesty, Ngwenyama of Swaziland. This lease gives Maloma the right to mine in the prescribed area.

There is currently a dispute with the local farmers as to what compensation and rental should be paid to them in respect of surface land use. If these disputes are settled in favour of the farmers, the maximum potential liability of Maloma in respect to these disputes is estimated to be approximately Lilangeni 400,000.

7. Costs

7.1 Operating costs

Limited historical cost information is available as the previous owners, Koch Petroleum Corporation (USA), did not report costs in a conventional manner. Operating costs are anticipated to decline substantially in 2002.

7.2 Capital costs

In the past, Koch Petroleum Corporation (USA) did not capitalise any assets in Maloma but accounted for the assets in Associated Mining, a subsidiary of Koch. These assets (plant and equipment) were then rented to Maloma at a high rental cost. All funding was achieved by means of interest bearing loans to Maloma. Most of the loans were denominated in US dollars. Capital expenditure will have to take place over the next 24 months to ensure that South African mining standard practices are met and to fulfil the forecast market demand.

8. Risks and synergies

8.1 Risks

Historically the mine has had a poor safety record. Xstrata South Africa has adopted the policy of South African Mining Standards (audited by Xstrata South Africa) which is considered to be approximately 80% complete (January 2002).

8.2 Synergies

The mine represents a cheap source of carbon units to Xstrata South Africa for metallurgical usage in its ferroalloys operations.

Xstrata South Africa's current off-take is a minimum of 33% of current capacity. It is envisaged that within the next 24 months, this level could well exceed 50%. The mine can be expanded with relatively small capital expenditure (estimated at approximately ZAR15 to ZAR20 million).

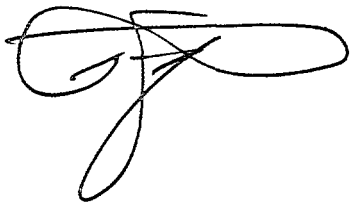
9. Summary of conclusions

Although the mine has suffered from lack of capital investment in recent years, it has the potential to exploit the newly developing South African metallurgical market as opposed to the traditional "smokeless fuel" market.

The mine can be considered to be a captive reductant source for the Group. Xstrata South Africa could potentially consume in excess of 70% of current output levels by mid 2003 (currently 40%) at a secure and controlled price.

Current resources suggest a mine life of over 30 years. The geology, while faulted, is not unusual and to date has had no negative impact on production capability.

Capital injection will have to take place in the next 24 months to ensure that South African mining standard practices are met and to facilitate the forecast market demand.



Tony Riley
HND Metallurgy

20 March 2002

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Definitions and glossary of technical terms

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Definitions

The following definitions apply throughout this document unless the context requires otherwise:

"Acquisitions"	the acquisition of the Coal Assets pursuant to the Acquisition Agreement
"Acquisition Agreement"	the sale and purchase agreement dated 21 February 2002, as amended by the amending agreement dated 20 March 2002, setting out the terms of the Acquisitions, as further described in "Information on the Group - The acquisition of the Coal Assets and the Merger - The acquisition of the Coal Assets" in Part I and "Additional information - Agreements relating to the Acquisitions and the Merger - The Acquisition Agreement" in Part VIII
"Admission"	the admission of the Ordinary Shares to be issued in connection with the Acquisitions, the Merger and the Global Offer to the Official List and to trading on the London Stock Exchange's market for listed securities in accordance with paragraph 7.1 of the Listing Rules and paragraph 2.1 of the Admission and Disclosure Standards of the London Stock Exchange
"AME"	AME Mineral Economics
"Articles"	the articles of association of the Company which have been adopted conditional upon Admission
"associated undertaking"	has the meaning ascribed to it in paragraph 20(1) of Schedule 4A to the Companies Act
"Asturiana"	Asturiana de Zinc, S.A., a company incorporated in Spain with limited liability or, where the context requires, Asturiana de Zinc, S.L., a company incorporated in Spain with limited liability (as constituted by the merger of Asturiana de Zinc, S.A. and Xstrata Spain, S.L.)
"Australia"	the Commonwealth of Australia
"Board"	the board of directors of the Company
"Brook Hunt"	Brook Hunt Mining & Metal Industry Consultants
"Chapter 19"	Chapter 19 of the Listing Rules
"Chromecorp"	the business previously carried on by Chromecorp Holdings Limited, a company incorporated in South Africa with limited liability which is now part of Xstrata South Africa
"CMI"	the business previously carried on by Consolidated Metallurgical Industries Limited, a company incorporated in South Africa with limited liability which is now part of Xstrata South Africa
"Coal Assets"	the entire issued share capital of each of Glencore Overseas AG (of which Enex is a wholly-owned subsidiary), Duiker Marketing AG and Duiker
"Coal Business"	the business of the Group comprising the coal operations in Australia and South Africa as further described in "Information on the Group - Coal Business" in Part I
"Combined Code"	the principles of good governance and code of best practice appended to the Listing Rules
"Companies Act"	the United Kingdom Companies Act 1985, as amended
"Company"	Xstrata plc, a public company incorporated in England and Wales with limited liability
"Completion"	the completion of the sale and purchase of the Coal Assets under the terms of the Acquisition Agreement
"CPR"	Competent Person's Report
"CREST"	the system for the paperless settlement of trades in listed securities, of which CRESTCo Limited is the operator
"CREST Regulations"	The Uncertificated Securities Regulations 2001
"CRU"	CRU International
"Directors"	the Executive Directors and the Non-executive Directors
"Duiker"	Duiker Mining (Proprietary) Limited, a company incorporated in South Africa with limited liability
"Duiker Group"	Duiker and Duiker Marketing AG and their subsidiaries and subsidiary undertakings and, where the context requires, their associated undertakings

"Duiker Mining Shareholders"	Duiker Coal Investments Limited, Duffield Trading Limited, Glencore Finance (Bermuda) Limited and Stychus Invest AG
"Enex"	Enex Resources Limited, a company incorporated in Australia with limited liability and a member of the Enex Group
"Enex Group"	Glencore Overseas AG and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings
"EU"	European Union as established by the Treaty on European Union
"Exchange Ratio"	the ratio of Ordinary Share(s) to Xstrata AG Share(s) which shareholders of Xstrata AG will be entitled to receive pursuant to the Merger
"Executive Directors"	the executive directors of the Company
"FDS"	Forestal del Sur Ltda
"Ferroalloys Business"	the business of the Group comprising the chrome and vanadium operations as further described in "Information on the Group - Ferroalloys Business" in Part I
"FLL"	Forestal Los Lagos S.A., a company incorporated in Chile
"FSMA"	the United Kingdom Financial Services and Markets Act 2000
"Glencore"	Glencore International and its subsidiaries and affiliates or, as the context requires, any subsidiary or affiliate thereof
"Glencore International"	Glencore International AG, a company incorporated in Switzerland with limited liability
"Global Co-ordinator"	J.P. Morgan Securities Ltd.
"Global Offer"	the opportunity to acquire Ordinary Shares being made available to institutional and certain other investors described in "The Global Offer and related matters" in Part III
"Group"	Xstrata and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings, as constituted immediately following completion of the Acquisitions and the Merger
"IAS"	International Accounting Standards
"Independent Director"	for the purposes of the Relationship Agreement, a Director who is not a director, officer or employee of Glencore and is free from any business or other relationship with Glencore, which could materially interfere with the exercise of his independent judgement in matters concerning Glencore
"Ingwe"	Ingwe Coal Corporation, a subsidiary of BHP Billiton
"Joint Bookrunners"	J.P. Morgan Securities Ltd., Cazenove & Co. Ltd and Deutsche Bank AG London
"JPMorgan"	J.P. Morgan plc or, where the context requires, J.P. Morgan Securities Ltd.
"LIBOR"	London inter bank offered rate
"Listing Particulars"	these listing particulars relating to the Company and the Ordinary Shares prepared in accordance with the Listing Rules
"Listing Rules"	the listing rules of the UK Listing Authority, made under Section 74 of the FSMA
"London Stock Exchange"	London Stock Exchange plc
"Manager's Option"	the option granted to J.P. Morgan Securities Ltd., on behalf of the Underwriters, to require the Company to issue additional new Ordinary Shares at the Offer Price, inter alia, to cover over-allotments or further allotments, if any, in connection with the Global Offer and to cover short positions resulting from stabilisation transactions, as contained in the Underwriting Agreement
"Manager's Option Shares"	15,000,000 new Ordinary Shares
"Merger"	the merger of Xstrata AG and the Company pursuant to which the Company will become the ultimate holding company of the Group, as further described in "Information on the Group - The acquisition of the Coal Assets and the Merger - The Merger" in Part I
"Merger Agreement"	the agreement dated as of 20 February 2002 entered into between the Company and Xstrata AG setting out the terms of the Merger, as further described in "Information on the Group - The acquisition of the Coal Assets and the Merger - The Merger" in Part I and "Additional

	information - Agreements relating to the Acquisitions and the Merger - The Merger Agreement" in Part VIII
"Non-executive Directors"	the non-executive directors of the Company including, where the context requires, David Rough, who has agreed to become a non-executive director and Deputy Chairman of the Company with effect from 1 April 2002
"Oakbridge"	Oakbridge Pty Limited, a company incorporated in Australia with limited liability, which is 66.53% owned by the Enex Group
"Offer Price"	870 pence per Ordinary Share
"Official List"	the official list maintained by the UK Listing Authority for the purposes of Part VI of the FSMA
"Ordinary Shares"	Ordinary Shares of US$0.50 each in the Company
"Port Waratah Coal Terminal"	comprises two coal terminals, Carrington and Kooragang, at the port of Newcastle in New South Wales, Australia
"Purchasers"	the Company, Xstrata (Schweiz) AG and Xstrata South Africa
"Ravensworth Agreement"	the agreement dated 19 December 2001 between CNA Resources Limited, Enex Ravensworth Pty Limited and Glencore International for the sale and purchase of the Ravensworth coal supply business in Australia
"RBCT"	Richards Bay Coal Terminal
"Regulation S"	Regulation S under the Securities Act
"Relationship Agreement"	the agreement dated 20 March 2002 between the Company and Glencore International as further described in "Relationship with Glencore – Relationship with controlling shareholder" in Part II
"Rhovan"	Rhombus Vanadium (Pty) Limited, a company incorporated in South Africa with limited liability
"RTGS"	Real Time Gross Settlement
"Rule 144A"	Rule 144A under the Securities Act
"SECOM"	trading system operated by SWX
"Securities Act"	the US Securities Act of 1933
"Shareholders"	the holders of Ordinary Shares of the Company
"SIS"	SIS Segaintersettle AG
"South Africa"	the Republic of South Africa
"Sponsor"	J.P. Morgan plc
"Swiss Admission"	the admission of the Ordinary Shares to listing on SWX
"SWX"	SWX Swiss Exchange
"Syndicated Loan Facility"	the syndicated loan facility arranged by Barclays Capital (the investment banking division of Barclays Bank PLC), Dresdner Kleinwort Wasserstein acting through Dresdner Bank Luxembourg S.A. and J.P. Morgan plc on the terms set out in the Syndicated Loan Facility Agreement
"Syndicated Loan Facility Agreement"	the syndicated loan facility agreement between the Company, Xstrata (Schweiz) AG, Asturiana, Xstrata South Africa, Xstrata Vanadium Holdings Pty Limited, Xstrata Capital Corporation A.V.V., Xstrata Zinc B.V., AZSA Holdings Pty Limited, Xstrata Marketing Corporation A.V.V. and Barclays Capital (the investment banking division of Barclays Bank PLC), Dresdner Kleinwort Wasserstein acting through Dresdner Bank Luxembourg S.A. and J.P. Morgan plc, as mandated lead arrangers, and the banks named therein, as lenders, dated on or about 20 March 2002 (but in any event prior to Admission) setting out the terms of the Syndicated Loan Facility, as further described in "Additional information - Agreements relating to the Acquisitions and the Merger - Syndicated Loan Facility Agreement" in Part VIII
"Tax Covenant"	the covenant relating to tax set out in a Schedule to the Acquisition Agreement
"UK GAAP"	generally accepted accounting principles as used in the UK

"UK Listing Authority" or "UKLA"	the Financial Services Authority acting in its capacity as the competent authority for the purposes of Part VI of the FSMA and in the exercise of its functions in respect of the admission to the Official List otherwise than in accordance with Part VI of the FSMA
"Underwriters"	J.P. Morgan Securities Ltd., Cazenove & Co. Ltd, Deutsche Bank AG London, BNP PARIBAS, HSBC Investment Bank plc and NZB Neue Zürcher Bank
"Underwriting Agreement"	the underwriting agreement between the Company, Xstrata AG, the Underwriters and the Sponsor dated 20 March 2002
"United Kingdom" or "UK"	the United Kingdom of Great Britain and Northern Ireland
"United States" or "US"	the United States of America, its territories and possessions, any state of the United States of America and the District of Columbia
"US GAAP"	generally accepted accounting principles as used in the US
"Vantech"	Vanadium Technology (Pty) Limited, a company incorporated in South Africa with limited liability which is now part of Xstrata South Africa and which was de-registered on 27 June 2001
"Vendors"	Glencore International, Duiker Coal Investments Limited, Duffield Trading Limited, Glencore Finance (Bermuda) Limited and Stychus Invest AG
"Xstrata"	Xstrata plc, a company incorporated in England and Wales with limited liability
"Xstrata AG"	Xstrata AG, a company incorporated in Switzerland with limited liability
"Xstrata AG Group"	Xstrata AG and its subsidiaries and subsidiary undertakings and, where the context requires, its associated undertakings, as constituted immediately prior to the Merger and the Acquisitions
"Xstrata AG Shares"	ordinary bearer shares in the capital of Xstrata AG with a nominal value of 10 Swiss Francs
"Xstrata AG Share Schemes"	the Xstrata AG Group Management and Employee Share Incentive Scheme, the Xstrata AG Directors' Option Scheme and the Xstrata AG Directors' Incentive Scheme
"Xstrata Employee and Directors Share Ownership Trust"	The Xstrata Employee and Directors Share Ownership Trust to be established by a trust deed between the Company and Orbis Trustees Guernsey Limited on the date the Merger becomes effective
"Xstrata Employee Share Ownership Trust"	the Xstrata Employee Share Ownership Trust to be established by a trust deed between the Company and Orbis Trustees Guernsey Limited on the date the Merger becomes effective
"Xstrata LTIP"	the Xstrata Long Term Incentive Plan to be established on the date the Merger becomes effective
"Xstrata (Schweiz) AG"	Xstrata (Schweiz) AG, a company incorporated in Switzerland with limited liability
"Xstrata South Africa"	Xstrata South Africa (Proprietary) Limited, a company incorporated in South Africa with limited liability
"Zinc Business"	the Group's zinc business as further described in "Information on the Group - Zinc Business" in Part I

Glossary of technical terms

The following definitions shall apply to the technical terms used herein:

"adit"	a horizontal or nearly horizontal entrance/access to an underground mine from surface. Often starting from the side of a hill
"agglomeration"	binding fine particles together to create coarse particles as part of a mineral processing activity
"air dried (ad)" or "gross air dried (gad)"	the analysis of a sample that has been partially dried to approximate inherent or bed moisture
"ammonium metavanadate" or "ammonium polyvanadate"	an intermediate vanadium chemical in the recovery process
"anorthite"	a plagioclase feldspathic mineral
"anorthosite"	an intrusive igneous rock
"anthracite"	a hard coal containing a high percentage of fixed carbon and a low percentage of volatile material
"assay"	the percentage of a particular element or compound in a given sample
"attributable production"	that part of mine or operation production in which the Group has an economic interest. It therefore excludes production attributable to minority interests in controlled subsidiaries and the interests of joint venture partners
"attributable reserves"	that part of reserves from a mine in which the Group has an economic interest. It therefore excludes reserves attributable to minority interests in controlled subsidiaries and the interests of joint venture partners
"attributable resources"	that part of resources from a mine in which the Group has an economic interest. It therefore excludes reserves attributable to minority interests in the controlled subsidiaries and the interests of joint venture partners
"attributable sales"	that part of sales from a mine or operation in which the Group has an economic interest. It therefore excludes sales attributable to minority interests in controlled subsidiaries and the interests of joint venture partners
"auger mining"	inexpensive method of mining by boring horizontally into a coal seam at the base of strata exposed for excavation
"autogenous"	as applied to grinding, using the larger ore particles to grind the finer ones
"bag house" or "baghouse"	a facility containing air filters to remove dust from gases
"balling"	the formation of balls in a pelletising process
"bank cubic metres"	the volume (in cubic metres) of an excavation measured in place before being disturbed
"basic pegmatoids"	a felsic segregation associated with dolerite
"beneficiation"	treatment of raw material by drying, flotation, gravity or magnetic separation
"bituminous"	a measure of coal rank. It is a measure of the degree of metamorphosis or change from the original plant or vegetative state
"blast"	an explosion or violent detonation caused by the discharge of dynamite or other explosive material. Primarily used to refer to the loosening of coal overburden
"borehole"	a hole made with a drill, auger or other tool for exploring strata in search of minerals
"bord and pillar"	a mining method in which supporting pillars are formed as development proceeds, and which may subsequently be mined
"calcine"	zinc oxide produced from the roasting of zinc concentrates
"calorific value"	the heat of combustion of a unit quantity of coal. It is expressed in British Thermal Units per pound (Btu/lb), kilocalories per kilogramme (kcal/kg) or mega joules per kilogramme (MJ/kg). The gross calorific value includes all heat of vapourisation of water. Net calorific value assumes that all water is in the vapour phase
"cash costs"	the operating costs of the business that include mining, processing, distribution and overheads, but exclude depreciation, amortisation, tax and interest

"caustic soda"	sodium hydroxide (NaOH)
"char"	the solid residue produced by the heating of coal in anaerobic conditions. Coke is a form of char used in the steel industry
"chip channel"	a narrow, continuous cut taken across a coal seam or ore body to obtain a representative sample of material at their location
"CHPP"	coal handling preparation plant
"chrome spinel"	also known as Picotite. A spinel containing chromite.
"chromite"	$FeCr_2O_4$, the principal chromium ore
"CIF"	cost, insurance and freight
"cleats"	system of joints, cleavage planes or planes of weakness found in coal seams
"coal mine"	an operating mine producing coal
"coal preparation"	collectively, physical and mechanical processes applied to make a product suitable for a particular use
"coke"	bituminous coal from which the volatile components have been removed
"coking coal"	coal used to create coke – which is consumed in the steel reduction process
"concentrate"	material that has been processed to increase the content of contained material or mineral relative to the contained waste
"continuous miner"	mining machine designed to remove coal from the face with the use of cutting machines and to load that coal into shuttle cars or onto conveyors
"contractor"	an independent operator who mines another party's coal or ore for that party, usually at a predetermined price
"conveyor haulage"	a mechanical system that conveys coal or ore from a receiving point, such as a continuous miner, to a discharge point
"core"	a cylindrical sample of rock obtained during core drilling
"Cr_2O_3"	chrome oxide
"crush, crushing, crushed"	a mechanical method of reducing the size of rock
"crusher"	a machine for crushing rock or other materials
"cyclone"	a classifying (or concentrating) separator into which pulp is fed, so as to take a circular path. Coarser and heavier fractions of solids report at the apex of long cone while finer particles overflow from a central vortex. Also called hydrocyclone
"de-ammoniator"	an electrically heated furnace to drive off ammonia
"dense medium" or "dense medium separation" or "DMS"	a fluid formed by the suspension in water of heavy particles e.g. magnetite. This fluid is used industrially to separate by gravity ROM coal into fractions of different product gravities
"diabase"	a dark intrusive igneous rock
"DIFR"	disabling injury frequency rate. The number of disabling injuries per 200,000 manhours worked
"dilution"	the contamination of ore with barren wall rock. The assay of the ore after mining is frequently lower than when sampled in place
"dip"	the angle of inclination downward that a coal bed makes with a horizontal plane
"discard/dirt/stone"	the material extracted from the ROM coal and finally discarded either prior to or after coal cleaning
"dolerite"	a grey intrusive rock whose main components are labradorite and pyroxene
"down-dip"	parallel to or in the general direction of the dip of the reef, stratum, vein seam or bed
"drillhole"	a circular hole made in rock, often in conjunction with a core barrel in order to obtain a core sample

"dyke"	an igneous intrusion cutting across the coal seam, usually in a vertical or near vertical plane, generally of dolerite composition in South African coal fields
"electric furnace"	an electrically heated furnace (often for melting)
"entry/bord"	a term commonly used in coal mining for a horizontal, or nearly so, development opening
"ESKOM"	electricity supply commission
"evaporator"	a mechanical compression device to evaporate water from salt solutions
"exploration"	the work involved in the intentional searching for a mineral, prospect or deposit
"face (coalface)"	the working area or end of a development heading or entry
"fault"	a fracture in the earth, one side of which is displaced with respect to the other in any direction
"FeCr"	ferrochrome, an alloy of iron and chromium
"ferrogabbro"	an iron rich gabbro
"ferrovanadium"	an alloy of iron and vanadium
"FeV"	ferrovanadium
"flaking wheel"	a water cooled rotating wheel to convert molten vanadium pentoxide powder to flakes
"floor"	the bottom or lowermost part of an underground working
"flux"	a substance that absorbs the mineral impurities, or promotes the fusing of minerals or metals, or prevents the forming of oxides.
"FOB"	free on board
"FOR"	free on rail
"fractured"	breaks in rock formations due to intense faulting or folding
"froth flotation"	a coal cleaning process applied to the beneficiation of fine particles typically 0.5 millimetres in diameter. Hydrophobic coal particles attach themselves to air bubbles in a water medium and rise to the surface to form a froth
"gabbro"	a dark coloured, basic intrusive igneous rock composed primarily of plagioclase and clinopyroxene
"geology"	the science dealing with the formation of the earth and mineral deposits
"geotechnical conditions"	the engineering behaviour of rocks as a result of an excavation
"graben"	a fault bounded, down-throw block. The bounding faults are vertical to near vertical and parallel to each other over several kilometres
"grade"	the quality of an ore, alloy or metal, usually expressed as a percentage of the primary element
"grinding"	size reduction of crushed rock into relatively fine particles
"hangingwall"	the wall or rock on the upper side of the inclined orebody (the roof)
"hexavalent chromium"	a form of chromium which is water soluble and carcinogenic
"highwall"	the face of exposed overburden and coal in an opencast mine
"igneous"	originating from a molten state
"Indicated Resources"	the resources for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence
"induration"	a process whereby pellets are hardened.
"Inferred Resources"	a mineral resource inferred from geoscientific evidence, drill holes, underground openings or other sampling procedures where the lack of data is such that continuity cannot be predicted with confidence and where geoscientific data may not be known with a reasonable level of reliability
"in-situ reserves"	the tonnages of in-situ coal contained within seams or sections of seams in the ground for which sufficient information is available to enable detailed or conceptual mine planning and for which such planning has been undertaken
"jigs"	mineral separators, relying on specific gravity differences to separate minerals

"joints"	a fracture or parting that cuts through and abruptly interrupts the physical continuity of a rock mass
"JORC Code"	Report of the Joint Ore Reserves Committee of the Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, dated September 1999
"kiln"	a large furnace used for baking, drying, or burning firebrick or refractories, or for calcining ores or other substances
"kriging"	in the estimation of ore reserves by geostatistical methods, the use of a weighted, moving-average approach both to account for the estimated values of spatially distributed variables, and also to assess the probable error associated with the estimates
"L"	miscellaneous licence
"lb"	English pound equivalent to 0.4536 kilogrammes
"leaching" or "leach process"	extracting a soluble metallic compound from an ore by selectively dissolving it in a suitable solvent
"lead concentrate"	product of the flotation process typically ranging in lead content between 50% and 70%
"lease"	contract between two parties enabling one to search for and/or produce minerals from the other's property
"LHD"	load haul dump vehicle
"LME"	London Metal Exchange
"LOM"	the remaining life of the mine until the reserves are depleted
"longwall mining"	mining method in which a coal face is mined using a shearer mounted on an armoured chain conveyor that runs along the full length of the coal face. Hydraulic jacks support the roof over the worked-out area. As the longwall face advances, the roof behind the jacks is allowed to cave
"losses - geological"	ore lost due to unpredictable geological phenomena
"losses - mining"	ore lost due to mining operations
"M" or "mining licence"	permission to mine minerals from a mineral rights area
"magnetite"	a magnetic mineral (Fe_3O_4)
"magnetitite"	rock where the magnetite content is in excess of 90%
"magnetic separation"	the separation of magnetic materials from non-magnetic materials using magnetic forces
"Marketable Reserves"	where relating to coal, the tonnage that will be available for sale after beneficiation, if any, from ROM production
"Measured Resources"	the resources for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence
"metallurgical coal"	coking coal and pulverised coal
"middlings"	a product of coal preparation that, by reason of its ash content, is intermediate between coal and discard
"mined-out"	an area where all economic material has been extracted
"mineral rights"	the ownership of the minerals on or under a given surface with the right to remove the said minerals
"mineralisation"	material containing the target mineral
"mining permit"	permission to mine minerals from a Mineral Rights area
"MLA"	Mining Licence Application
"mlb"	million lb
"monomineralic"	essentially consisting of one mineral
"Mt"	million tonnes
"Mtpa"	million tonnes per annum

"NOx"	gases which are oxides of nitrogen.
"NPV"	net present value
"opencast" or "open pit mine"	mine where overlying strata overburden is removed, coal is extracted and the overburden is replaced
"ore"	a mineral or mineral aggregate containing precious or useful minerals in such quantities, grade and chemical combination to make extraction commercially profitable
"outcrop"	the edge or surface of a mineral deposit or sedimentary bed, which appears upon the surface
"overburden"	the alluvium, soil and rock that must be removed in order to expose an ore deposit
"oxalate"	sodium oxalate
"paleo"	ancient, reference to past geological times
"pegmatoid intrusion(s)"	a very coarse grained pegmatic facies of igneous rock
"pelletising"	a process of turning powder material into regular shaped larger sized lumps either by compression or agglomeration
"pillar"	a portion of a metal or coal deposit left in place in an underground mine to provide support for the roof
"pit (mining)"	abbreviation of open pit mine
"plant"	fixed or moveable equipment required in the process of winning or processing the ore
"plies"	successive thin layers of coal or rock
"poikilitic"	igneous rock texture in which small crystals of one mineral are scattered irregularly
"pre-feasibility planning study"	a study with an overall accuracy of +/- 25%
"pregnant solution"	solution containing wanted soluble chemical
"preparation plant yield"	ratio of cleaned coal to run of mine coal, expressed as a percentage
"pre-reduction"	a process whereby furnace feed material is partially reduced, typically in a rotary kiln, reducing the amount of reduction required in the furnace and thereby increasing its effective throughput
"Probable Reserves"	measured and/or indicated resources which are not yet proven but of which detailed technical and economic studies have demonstrated that extraction can be justified at the time of determination and under specific economic conditions
"project"	a coal deposit which is in the pre-operating phase of development and, subject to capital investment, feasibility investigations, statutory and management approvals and business considerations, may be commissioned as a coal mine
"prospecting permit"	permission to prospect for minerals from a mineral rights area
"Proved Reserves"	measured mineral resources of which detailed technical and economic studies have demonstrated that extraction can be justified at the time of determination and under specific economic conditions
"proximate"	a laboratory determination of moisture, volatile matter, ash and fixed carbon
"Pulverised Coal Injection"	the process of blowing finely ground coal into a blast furnace using compressed air
"punch mine"	a small mine in which underground workings are accessible from a coal exposure at an outcrop or from the highwall of a surface mine
"pyroxene"	a mineral group. $ABSi_2O_6$ where A is chiefly Mg/Fe, Ca or Na and B is MgFe or A1
"pyroxenite"	a coarse grained, hollocrystalline igneous rock comprises chiefly of pyroxenes
"quarry"	an open pit mine
"Recoverable Reserves" or "recovery"	where relating to coal, the tonnages of in-situ reserves that are expected to be recovered; i.e. that portion of the seam which will be extracted
"reductant"	an additive used specifically to drive off oxygen in a metallurgical conversion process
"reef(s)"	a layer, vein or lode containing economic mineralisation

"refining"	the final stage of metal production in which final impurities are removed from the molten metal by introducing air and fluxes. The impurities are removed as gases or slag
"refuse"	waste material in raw coal which the cleaning process removed
"reject"	the material extracted from the ROM coal feed during cleaning, for re-treatment or discard
"reserves"	those parts of mineral resources for which sufficient information is available to enable detailed or conceptual mine planning and for which such planning has been undertaken. Reserves are classified as either proved or probable
"resources"	all of the potential minerals in a defined area based on points of observation and extrapolations from those points. Potential minerals are defined as minerals which have been or could be beneficiated to give a quality acceptable for commercial usage in the foreseeable future and excludes minor mineral occurrences
"rights" or "surface rights"	the ownership of the surface land under which minerals occur
"roaster"	a furnace which, by applying super-heated air to an ore or concentrate, causes oxidation to take place, allowing the ore or concentrate to be successfully treated
"ROM coal feed"	ROM coal supplied to a plant or machine, in which it undergoes some form of preparation
"ROM" or "run-of-mine"	a mineral in its raw, untreated state subsequent to extraction and prior to sizing and other beneficiation
"roof"	the overhead part of an underground mine working
"room"	the excavated tunnel between the pillars in the underground mine workings
"rotary Kiln"	a kiln in the form of a long cylinder, usually inclined and slowly rotated
"royalty"	a share of the product or profit reserved by the owner for permitting another to exploit the property
"saleable production"	the quantity of ore or metal which can be available for sale after considering mining recovery and preparation plant yield
"scrubber"	a general term applied to equipment designed to capture and remove solid or vapour phase impurities from gases prior to their discharge into the atmosphere
"seam"	a mineralised regular vein producing or affording any kind of metallic ores or coal
"SHG" or "special high grade"	zinc ingot of 99% purity
"shaft"	a vertical or inclined excavation, commonly from the surface, of limited cross-sectional area compared to its depth. It is used for mining, draining water, ventilation, lowering and hoisting men, product and waste and lowering materials
"shuttle car"	a trackless vehicle used specifically for being loaded with ROM coal by a continuous miner and shuttling back and forth to a conveyor where the coal is dumped
"silica"	a mineral used as a flux (SiO_2)
"sill"	a tabular igneous intrusion that parallels the bedding of the surrounding rocks and coal seams, generally of dolerite composition in the South African coal fields
"skrot"	contaminated metal removed from saleable metal
"slag"	formed in smelting through combination of a flux with the waste proportion of the ore
"slurry"	a fluid comprising fine solids suspended in a solution
"smelting"	thermal processing whereby molten metal is liberated from beneficiated ore or concentrate with impurities speared as lighter slag
"SO_2"	sulphur dioxide
"specific gravity" or "SG"	the ratio of the weight of any substance to an equal volume of water
"spirals"	mineral separators, having a spiral flow pattern and relying on specific gravity differences to separate minerals
"spot price"	the current price of a metal for immediate delivery
"stockpile"	an accumulation of ore or mineral

"stooping (pillaring)"	the practice of recovering coal left in the support pillars
"stoping"	the act of excavating ore, either above or below a set level, in a series of steps in an underground mine
"stripping"	removing the overburden material from a coal or mineral deposit
"stripping ratio"	the ratio of tonnes of waste mined to tonnes of ore mined in an opencast mining operation
"subcrop"	just below surface
"subsidence"	the sinking or settling of material, especially over an underground mining operation
"tailings"	finely ground rock from which valuable minerals have been extracted by milling
"tailings dam"	one to which the slurry is transported, the solids settling while the liquid may be withdrawn
"talus"	surficial magnetite rocks formed by weathering
"thermal coal"	coal used in generating steam for electricity production
"titaniferous"	titanium bearing
"titanomagnetite"	titanium bearing magnetite
"t" or "tonne"	metric tonne equivalent to 2,204.62 pounds
"tonnage"	the number of tons
"topographical"	the physical features of a district or region delineated on a map
"total sales"	the total sales from a particular mine or operation for the whole year regardless of ownership
"tpa"	tonnes per annum
"ultrabasics rocks"	igneous rocks containing less than 45% silica
"ultramafic igneous complex"	a complex containing less than 45% SiO_2
"vanadiferous"	vanadium bearing
"vibrating screen - double deck"	a cloth, wire or bar-deck screen vibrated in order to sort material by size. Double deck indicates one screen mounted below the first
"V_2O_5"	vanadium pentoxide
"washing plant"	a plant designed to size and clean material to produce predetermined sizes of product
"waste"	rock lacking sufficient grade and/or other characteristics or ore to be economic
"waste parting"	rock or material of no commercial value residing within the ore horizon/reef
"wayleave"	established rights affecting land to which the owner does not hold title
"working face"	part of the mine where ore extraction work is underway, usually where coal is being cut and produced
"zinc concentrate"	product of flotation process typically ranging in zinc content between 45 and 60%

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