This document comprises a Prospectus relating to Glencore International plc (the "Company") and has been prepared in accordance with the Prospectus Rules of the Financial Services Authority (the "FSA") made under Section 73A of the Financial Services and Markets Act 2000 (as amended) (the "FSMA"), has been filed with the FSA and has been made available to the public as required by the Prospectus Rules.

Application has been made to the FSA for all of the Ordinary Shares, issued and to be issued in connection with the Global Offer, to be admitted to the premium listing segment of the Official List of the FSA (the "Official List") and to the London Stock Exchange plc (the "London Stock Exchange") and for such Ordinary Shares to be admitted to trading on the London Stock Exchange's main market for listed securities (together "UK Admission"). UK Admission constitutes admission to trading on a regulated market. Application has also been made to the Listing Committee of the Hong Kong Stock Exchange for listing of, and permission to deal in, all of the Ordinary Shares on the Main Board of the Hong Kong Stock Exchange ("HK Admission"). In the Global Offer, up to 988,973,234 new Ordinary Shares are being made available by the Company and up to 261,026,766 Ordinary Shares are being made available by the Selling Shareholder. Conditional dealings in the Ordinary Shares on a "when issued" basis are expected to commence on the London Stock Exchange on 19 May 2011. It is expected that UK Admission will become effective, and that unconditional dealings will commence in the Ordinary Shares on the London Stock Exchange, at 8.00 a.m. (London time) on 24 May 2011. **All dealings in the Ordinary Shares prior to the commencement of unconditional dealings on the London Stock Exchange will be of no effect if UK Admission does not take place and such dealings will be at the sole risk of the parties concerned. It is expected that HK Admission will become effective on 25 May 2011 and that unconditional dealings will commence in the Ordinary Shares on the Main Board of the Hong Kong Stock Exchange at 9.00 a.m. (Hong Kong time) on 25 May 2011. The new Ordinary Shares issued by the Company will rank *pari passu* in all respects with the existing Ordinary Shares.**

The Company and its Directors (whose names appear on page 30 of this Prospectus) accept responsibility for the information contained in this Prospectus. To the best of the knowledge and belief of the Company and the Directors (who have taken all reasonable care to ensure that such is the case), the information contained in this Prospectus is in accordance with the facts and contains no omission likely to affect the import of such information.

Prospective investors should read the whole of this Prospectus, including the discussions of certain risk and other factors that should be considered in connection with an investment in the Ordinary Shares, see "Risk Factors".

GLENCORE
INTERNATIONAL plc

GLENCORE INTERNATIONAL PLC

(incorporated in Jersey under the Companies (Jersey) Law 1991 with registered number 107710)

Prospectus

Global Offer of up to 1,250,000,000 Ordinary Shares at a price expected to be between 480 pence and 580 pence per Ordinary Share

Admission to the Premium Listing segment of the Official List and to trading on the London Stock Exchange and Secondary Listing on the Hong Kong Stock Exchange

Citi	Credit Suisse	Morgan Stanley
Joint Global Co-ordinator Joint Bookrunner Joint Sponsor	Joint Global Co-ordinator Joint Bookrunner	Joint Global Co-ordinator Joint Bookrunner Joint Sponsor

Joint Bookrunners

BofA Merrill Lynch | BNP PARIBAS

Co-Bookrunners

Barclays Capital | Société Générale | UBS Investment Bank

Joint Lead Managers

Crédit Agricole CIB | HSBC | ING

Co-Lead Managers

ABN AMRO | Banco Santander | DBS | Liberum Capital | Natixis | The Royal Bank of Scotland

Co-Managers

BOC International | COMMERZBANK | Mizuho International plc | Rabobank International | Sberbank of Russia | Standard Chartered

Ordinary Share capital immediately following Admission

(assuming the Offer Price is set at the mid-point of the Offer Price Range and no exercise of the Over-Allotment Option)

Authorised		Issued and fully paid	
Number	**Amount**	**Number**	**Amount**
50,000,000,000	U.S.$500,000,000	6,893,292,886	US$68,932,928.86

Ordinary Shares of U.S.$0.01 each

The Offer Price Range is indicative only, it may change during the course of the Global Offer and the Offer Price may be set within, above or below the Offer Price Range. The amount to be raised and the number of Ordinary Shares to be issued or sold may be increased or decreased during the course of the Global Offer. A number of factors will be considered in determining the Offer Price, the amount raised in the Global Offer and the basis of allocation, including the level and nature of demand for the Ordinary Shares during the book-building process and prevailing market conditions. A pricing statement containing the Offer Price, confirming the number of Ordinary Shares which are the subject of the Global Offer and containing any other outstanding information (the "Pricing Statement") is expected to be published on or about 19 May 2011.

A copy of this Prospectus has been delivered to the Jersey registrar of companies in accordance with Article 5 of the Companies (General Provisions) (Jersey) Order 2002, and the Jersey registrar of companies has given, and has not withdrawn, consent to its circulation. The Jersey Financial Services Commission has given, and has not withdrawn, its consent under Article 2 of the Control of Borrowing (Jersey) Order 1958, to the issue of the Offer Shares by the Company. It must be clearly understood that, in giving these consents, neither the Jersey registrar of companies nor the Jersey Financial Services Commission takes any responsibility for the financial soundness of the Company or for the correctness of any statements made, or opinions expressed, with regard to it. The Jersey Financial Services Commission is protected by the Control of Borrowing (Jersey) Law 1947, as amended, against any liability arising from the discharge of its functions under that law.

Nothing in this Prospectus or anything communicated to the holders or potential holders of Ordinary Shares by or on behalf of the Company is intended to constitute, or should be construed as, advice on the merits of the subscription for or purchase of Ordinary Shares or the exercise of any rights attached thereto for the purposes of the Financial Services (Jersey) Law 1998.

Citi and Morgan Stanley have been appointed as UK Sponsors in relation to UK Admission. Citigroup Global Markets U.K. Equity Limited, Morgan Stanley and Credit Suisse have been appointed as Joint Global Co-ordinators. BNP Paribas, Citigroup Global Markets U.K. Equity Limited, Credit Suisse, Merrill Lynch and MSSL have been appointed as International Joint Bookrunners in relation to the International Offer. Citi Asia and Morgan Stanley Asia have been appointed as HK Sponsors in relation to HK Admission. BNP Paribas, Citi Asia, Credit Suisse Asia, Merrill Lynch Asia and Morgan Stanley Asia have been appointed as HK Joint Bookrunners in relation to the Hong Kong offer. Each of the UK Sponsors and the International Managers are authorised and regulated in the United Kingdom by the FSA and each of the HK Sponsors and the Hong Kong Managers is authorised and regulated in Hong Kong by the SFC and all of the Banks are acting exclusively for the Company and no one else in connection with the Global Offer and will not regard any other person (whether or not a recipient of this Prospectus) as a client in relation to the Global Offer and will not be responsible to anyone other than the Company for providing the protections afforded to their respective clients, nor for giving advice in relation to the Global Offer or any transaction or arrangement referred to in this Prospectus.

Recipients of this Prospectus are authorised to use it solely for the purpose of considering the acquisition of the Ordinary Shares and may not reproduce or distribute this Prospectus, in whole or in part, and may not disclose any of the contents of this Prospectus or use any information herein for any purpose other than considering an investment in the Ordinary Shares. Such recipients of this Prospectus agree to the foregoing by accepting delivery of this Prospectus.

The Ordinary Shares are subject to selling and transfer restrictions in certain jurisdictions. Prospective purchasers or subscribers should read the restrictions described in paragraph 12 "Selling and transfer restrictions" of Section VIII: "Details of the Global Offer". Each subscriber or purchaser for the Ordinary Shares will be deemed to have made the relevant representations described therein.

This Prospectus 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 it is unlawful to make such offer or solicitation in such jurisdiction.

The distribution of this Prospectus and the offer of the Ordinary Shares in certain jurisdictions may be restricted by law. No action has been or will be taken by the Company or the Underwriters to permit a public offering of the Ordinary Shares or to permit the possession, issue or distribution of this Prospectus (or any other offering or publicity materials or application form relating to the Ordinary Shares other than a separate prospectus to be issued by the Company in Hong Kong on or about 13 May 2011 in connection with the Hong Kong Offer) in any jurisdiction where action for that purpose may be required. Accordingly, neither this Prospectus nor any advertisement or any other offering material may be distributed or published in any jurisdiction except under circumstances that will result in compliance with any applicable laws and regulations. Persons into whose possession this Prospectus comes should inform themselves about and observe any such restrictions. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

In particular, this Prospectus is not for release, distribution, issue or publication or directed at investors or the public in Hong Kong and does not constitute an offer of, or the solicitation of an offer to subscribe for or buy, any Ordinary Shares, to the public in Hong Kong. Any members of the public in Hong Kong who wish to invest in the Company should make their investment decision solely on the basis of the information contained in a separate prospectus to be issued by the Company in Hong Kong on or about 13 May 2011 in connection with the Hong Kong Offer that is authorised by the Hong Kong Stock Exchange for registration by the Registrar of Companies in Hong Kong.

This Prospectus is not a "web proof information pack" for the purposes of Hong Kong securities law.

The offer, subscription and/or sale of the Ordinary Shares has not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "Securities Act") or under the applicable securities laws of any state of the U.S. and, subject to certain exceptions, may not be offered or sold within the U.S. or to, or for the account or benefit of, U.S. Persons (as defined in Regulation S under the Securities Act ("Regulation S")). The Global Offer is being made (i) in the U.S. to certain qualified institutional buyers (each a "QIB") as defined in Rule 144A under the Securities Act ("Rule 144A"), that are also Qualified Purchasers ("QPs") as defined in Section 2(a)(51) of the U.S. Investment Company Act of 1940, as amended (the "Investment Company Act") in reliance on Rule 144A or another exemption from registration under the Securities Act and (ii) to persons who are not U.S. Persons (as defined in Regulation S) in offshore transactions in reliance on Regulation S. Each prospective subscriber and/or purchaser in the U.S. is hereby notified that the offer and sale of the Ordinary Shares to it may be made in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A. In addition, until 40 days after the commencement of the Global Offer, an offer or sale of any of the Ordinary Shares within the U.S. by any dealer (whether or not participating in the Global Offer) may violate the registration requirements of the Securities Act if the offer or sale is made otherwise than in accordance with Rule 144A or pursuant to another applicable exemption from registration under the Securities Act. The Company has not been and will not be registered under the Investment Company Act, and investors will not be entitled to the benefits of that Act. U.S. Persons will only be able to participate in the Global Offer if they are both (i) QPs and (ii) QIBs.

Ordinary Shares acquired by any U.S. Person as provided for in paragraph 12 "Selling and transfer restrictions" of Section VIII: "Details of the Global Offer" are not transferable except in compliance with the restrictions described in such paragraph. **The Ordinary Shares have not been approved or disapproved by the U.S. Securities and Exchange Commission (the "SEC"), any other Federal or State Securities Commission in the U.S. or any other U.S. Regulatory Authority, nor have any such authorities passed upon or endorsed the merits of the Global Offer or confirmed the accuracy or determined the adequacy of this Prospectus. Any representation to the contrary is a criminal offence in the U.S.**

Any prospective subscriber and/or purchaser and any person (including, without limitation, a nominee or trustee) who has a contractual or legal obligation to forward this Prospectus to (or for the account of) any U.S. Person, or to any jurisdiction outside the United Kingdom, should read paragraph 12 "Selling and transfer restrictions" of Section VIII: "Details of the Global Offer" of this Prospectus.

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.

Dated 4 May 2011.

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SUMMARY INFORMATION

This summary should be read as an introduction to this Prospectus only. Any decision to invest in the Ordinary Shares should be based on consideration of this Prospectus as a whole by the investor and not just this summary. Under the Prospectus Directive, in each Member State of the European Economic Area ("EEA"), civil liability attaches to those persons who are responsible for the summary, including any translations of the summary, but only if the summary is misleading, inaccurate or inconsistent when read together with other parts of this Prospectus. Where a claim relating to the information contained in this Prospectus is brought before a court, the plaintiff investor might, under the national legislation of the Member State of the EEA where such court is located, have to bear the costs of translating this Prospectus before the legal proceedings are initiated.

Overview and summary of operations

Glencore is a leading integrated producer and marketer of commodities, with worldwide activities in the marketing of metals and minerals, energy products and agricultural products and the production, refinement, processing, storage and transport of these products. Glencore operates globally, marketing and distributing physical commodities sourced from third party producers and own production to industrial consumers. Glencore has developed and built upon its expertise in the commodities it markets and cultivated long-term relationships with a broad supplier and customer base across diverse industries and geographic regions.

Glencore's marketing activities are supported by investments in industrial assets operating in Glencore's core commodities.

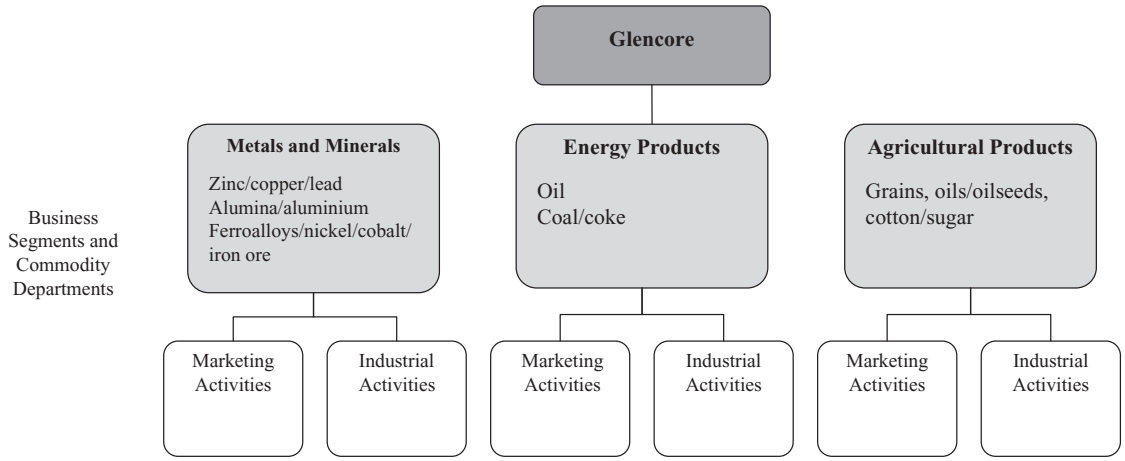
Glencore's industrial, geographical, commodity, supplier and customer diversity, in combination with its long-term relationships, have enabled it to operate profitably, even during periods of market weakness. Glencore's marketing operations are also less correlated to commodity prices than its industrial operations, making Glencore's earnings generally less volatile than those of pure producers of metals, mining and energy products.

Glencore focuses on maximising returns from the entire supply chain, taking into account its extensive global third party supply base, its logistics, risk management and working capital financing capabilities, extensive market insight, business optionality, its extensive customer base, strong market position and economies of scale. In contrast, this is not the business model of Glencore's main industrial competitors who are generally not set up to exploit the full range of value added margin and arbitrage opportunities throughout the commodity supply chain.

Glencore believes it is:

- the world's largest physical supplier of third party sourced commodities in respect of the majority of the metals and minerals it markets;
- among the world's largest non-integrated physical suppliers of crude oil and oil products;
- the world's largest participant in the supply of seaborne steam coal, including attribution of the volumes under a number of exclusive advisory and agency agreements with, amongst others, Xstrata;
- among the world's leading suppliers of sugar; and
- one of the leading exporters of grain from Europe, the CIS and Australia.

The following chart summarises Glencore's business structure:



Glencore's business segments are responsible for managing the marketing, sourcing, hedging, logistics and industrial investment activities for their respective commodities.

Glencore's marketing and industrial activities are supported by a global network of more than 50 offices located in more than 40 countries.

Glencore has an established record of successful strategic investments in industrial assets which have become an important component of its physical marketing activities.

Key strengths

Scale and leading market shares in commodity marketing globally

Glencore believes that it has significant market share positions in the addressable markets for zinc metal, zinc concentrate, copper metal, copper concentrate, alumina, aluminium, cobalt, seaborne export thermal coal and grains. Glencore's daily oil sales volumes represent approximately 3 per cent. of the world's daily oil consumption.

Core competence in commodity marketing, logistics, risk management and financing

Glencore is an established marketer of commodities and has built an outstanding market reputation as a reliable supplier of quality product. Glencore's experience has allowed it to build the market knowledge, insight and logistics capabilities required to generate value-added margins and seek arbitrage potential throughout the physical commodity supply chain.

Investments in high-quality low-cost extraction/processing operations with strong growth prospects

Glencore owns many high-quality assets, including Prodeco (coal) and Katanga (copper and cobalt). Glencore continues to invest in its high-quality, large-scale, long-life assets to increase production capacity.

Marketer with integrated production and processing capabilities

Glencore is differentiated from commodity production competitors in that it is also a substantial marketer of third party commodities. Glencore sees its ownership of industrial assets both as sources of self-produced commodities and as tools for increasing flexibility, optionality, security of supply and market knowledge.

Diversified across multiple commodities, suppliers and customers

Glencore markets a broad range of commodities (the three business segments are involved in the sourcing and marketing of more than 90 distinct commodities) from a diverse supply base to a diverse customer base.

Track record of value creation achieved

Glencore has been consistently profitable since the management buyout in 1994 and has a track record of growth across industry cycles. Since 2001, Glencore has achieved an average annual return on equity of 38 per cent.

World-class management and Board

Glencore's management is led by Ivan Glasenberg (Chief Executive Officer), supported by Steven Kalmin (Chief Financial Officer) and the rest of the management team. Between them, management has more than 200 years of experience at Glencore, where they have a proven track record of developing and growing the business. In addition to the management team and relevant experience of the Board, Glencore believes that there is considerable strength and depth below this level and it seeks to develop internal talent to ensure that this remains the case.

Resilient financial performance of marketing

Since the management buyout in 1994, Glencore's marketing operations have been profitable in every year of operation with a proven track record of resilience through industry cycles. Glencore believes that the financial performance of the marketing operations is less correlated to commodity prices than the industrial operations.

Barriers to entry

Glencore believes its scale, global reach and solid track record present significant barriers to entry into the global physical commodity marketing industry, which requires substantial access to credit markets and a global network supporting logistics and risk management capabilities and strong producer relationships.

Strategy

Continue to leverage geographic scope and diversification of operations

Glencore intends to build upon its position as one of the world's largest physical commodity suppliers and track record of extending product and geographical range by continuing to target market share increases and expansion in emerging markets.

Capitalise on strategic investments in industrial assets

Glencore's strategic investments in industrial assets are an important component of its physical sourcing strategy for its marketing activities. Glencore believes these investments provide a competitive advantage over peers which are less vertically integrated.

Use additional capital and liquidity to grow the business

Glencore believes the Global Offer will provide it with the financial resources needed to move it to the next stage of its development and achieve further sustainable growth.

Focus on cost management and further enhancing logistical capabilities

Glencore intends to continue its focus on cost control and operational efficiencies at its industrial assets and on the sourcing of competitively priced physical commodities from reliable third party suppliers.

Maintain conservative financial profile and investment grade ratings

Glencore's conservative financial profile and investment grade credit ratings have enabled it consistently to access the required funding on competitive terms and maintain healthy levels of liquidity. Glencore intends to continue to manage its financial position around maintaining its investment grade credit ratings.

Disciplined risk management

Glencore intends to continue its focus in this key area by maintaining and expanding its centralised risk management resources and information systems.

Place highest priority on employees, the environment and local communities

Glencore places the highest priority on its employees, the environment and the local communities where it operates.

Summary financial information

The table below sets out summary financial information of Glencore International as at and for the years ended 31 December 2008, 2009 and 2010, in each case prepared on a basis that consolidates the financial results and assets and liabilities of each of the companies constituting the Glencore International group before insertion of the Company as issuer and the integration of current shareholder parent entities (which will be completed prior to UK Admission). This information has been extracted without material adjustment from Section VI: "Historical Financial Information" and has been prepared on the basis described in the notes thereto, except for Adjusted EBITDA and cash cost information which have each been calculated as set forth in Section III: "Selected Historical Financial and Other Information".

Income statement data

	2008	2009	2010
		(U.S.$ million)	
Revenue	152,236	106,364	144,978
Cost of goods sold	(147,565)	(103,133)	(140,467)
Selling and administrative expenses	(850)	(839)	(1,063)
Share of income from associates and jointly controlled entities	1,067	82	1,829
(Loss)/gain on sale of investments—net	7	33	(6)
Other (expense)/income—net	(2,960)	35	(8)
Dividend income	238	12	13
Interest income	298	267	281
Interest expense	(1,135)	(854)	(1,217)
Income before income taxes and attribution	1,336	1,967	4,340
Income tax expense	(268)	(238)	(234)
Income before attribution	1,068	1,729	4,106
Attribution to profit participation shareholders	(677)	(650)	(2,460)
Income for the year	391	1,079	1,646
Attributable to:			
Equity holders	367	983	1,291
Non-Controlling interests	24	96	355

Balance sheet data

	2008	2009	2010
		(U.S.$ million)	
Non-current assets	24,803	27,551	35,491
Current assets	36,508	38,725	44,296
Total assets	61,311	66,276	79,787
Share capital, reserves and retained earnings, and amounts attributed to profit participation shareholders	15,405	16,686	19,613
Non-controlling interests	906	1,258	2,894
Invested capital	16,311	17,944	22,507
Other non-current liabilities	14,294	17,751	20,442
Total assets net of current liabilities	30,605	35,695	42,949
Current liabilities	30,706	30,581	36,838
Total equity and liabilities	61,311	66,276	79,787

Cash flow data

	2008	2009	2010
	(U.S.$ million)		
Cash generated by operating activities before working capital changes	4,587	3,095	4,234
Net cash generated/(used) by operating activities after working capital and net interest and income tax payments	5,960	(3,010)	111
Net cash used by investing activities	(2,950)	(1,164)	(4,755)
Net cash generated/(used) by financing activities	(2,842)	4,208	5,247
Increase in cash and cash equivalents	168	34	603
Cash and cash equivalents, beginning of year	658	826	860
Cash and cash equivalents, end of year	826	860	1,463

Other financial data and ratios

	2008	2009	2010
	(U.S.$ million)		
Adjusted EBITDA[1][5](unaudited)	5,701	3,108	6,201
Marketing activities	2,874	1,576	2,367
Industrial activities	2,827	1,532	3,834
Adjusted EBITDA pre-exceptional items[2][5]	6,787	3,929	6,201
Marketing activities	3,215	1,606	2,367
Industrial activities	3,572	2,323	3,834
Adjusted EBIT[3][5]	5,126	2,486	5,290
Marketing activities	2,861	1,561	2,337
Industrial activities	2,265	925	2,953
Adjusted EBIT pre-exceptional items[4][5]	6,212	3,307	5,290
Marketing activities	3,202	1,591	2,337
Industrial activities	3,010	1,716	2,953
Gross debt (unaudited)[6]	18,316	24,066	30,616
Marketing activities	N/A	10,197	12,835
Industrial activities	N/A	13,869	17,781
Interest expense pre-exceptional items—net (unaudited)[7]	(837)	(587)	(897)
Marketing activities (unaudited)	N/A	N/A	(299)
Industrial activities (unaudited)	N/A	N/A	(598)
Capital expenditure	(1,875)	(1,116)	(1,890)
Current ratio (x) (unaudited)	1.19	1.27	1.20
Current capital employed[9] plus listed associates (at carrying value) to Gross debt[6] (x) (unaudited)	1.22	1.26	1.15
Net debt (unaudited)[6]	11,500	10,186	14,756
FFO[8]/Net debt[6] (%) (unaudited)	31.6	22.9	22.6
Adjusted EBITDA pre-exceptional items[2]/Net interest (x) (unaudited)	8.11	6.69	6.91
Income before attribution—pre-exceptional items	4,824	2,820	4,007
Income before attribution	1,068	1,729	4,106

Notes:

(1) Adjusted EBITDA consists of revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the consolidated statement of income plus depreciation and amortisation.

(2) Adjusted EBITDA pre-exceptional items consists of Adjusted EBITDA as defined above, excluding exceptional items. Exceptional items represent significant items of income and expense which, due to their financial impacts, nature or the expected infrequency of the events giving rise to them, have been separated for internal reporting and analysis of Glencore's results. Exceptional items mainly include impairment charges on inventories and other assets.

(3) Adjusted EBIT consists of revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the consolidated statements of income.

(4) Adjusted EBIT pre-exceptional items consists of Adjusted EBIT as defined above excluding exceptional items. Exceptional items represent items of income and expense, which, due to their financial impacts, nature or the expected infrequency of the events giving rise to them, have been separated for internal reporting and analysis of Glencore's results. Exceptional items mainly include impairment charges on inventories and other assets.

(5) Adjusted EBITDA, Adjusted EBIT, Adjusted EBITDA pre-exceptional items and Adjusted EBIT pre-exceptional items are not typically measures of operating income, operating performance or liquidity under IFRS; however, Glencore has presented these measures in this Prospectus as Glencore understands that some investors use these measures to determine a company's ability to service indebtedness and fund ongoing capital expenditure and dividends. Investors should not consider these measures in isolation, or as a substitute for income from operations, income for the year and cash flows from operating activities, as determined in accordance with IFRS, as an indicator of operating performance.

The following table is a composition of the key line items on the face of the consolidated statement of income that comprise Adjusted EBIT and reconciles Adjusted EBIT pre-exceptional items, Adjusted EBITDA and Adjusted EBITDA pre-exceptional items for the periods indicated. A reconciliation to net income before attribution is provided in the Adjusted financial information by business segment section in Section III: "Selected Historical Financial and Other Information":

	2008	2009	2010
	(U.S.$ million)		
Revenue	152,236	106,364	144,978
Cost of goods sold	(147,565)	(103,133)	(140,467)
Selling and administrative expenses	(850)	(839)	(1,063)
Share of income from associates and jointly controlled entities	1,067	82	1,829
Dividend income	238	12	13
Adjusted EBIT	5,126	2,486	5,290
Addback exceptional items	1,086	821	0
Adjusted EBIT pre-exceptional items	6,212	3,307	5,290
Addback Depreciation and amortisation	575	622	911
Adjusted EBITDA pre-exceptional items	6,787	3,929	6,201
Deduct exceptional items excluded above	(1,086)	(821)	0
Adjusted EBITDA	5,701	3,108	6,201

(6) Gross debt includes Current borrowings, Non-current borrowings and commodities sold with agreements to repurchase. It excludes amounts owing under the Prodeco call option arrangement and other financial liabilities. Net debt is gross debt less cash and cash equivalents, marketable securities and Glencore's assessment of readily marketable inventories. In calculating the illustrative allocation of borrowings to the marketing activities, Glencore has estimated what it believes to be the reasonable amount of borrowings attributable to funding the marketing activities' working capital requirements at the relevant period end date, with particular reference to the level of inventories, net cash margining and other accounts receivable and payable. The balance of group borrowings is allocated to industrial activities. See Section III: "Selected Historical and Other Information".

(7) In calculating the illustrative allocation of interest expense to the marketing activities, Glencore has taken into consideration the average amount of borrowings illustratively allocated to marketing activities as described in the preceding paragraph for the relevant period, what Glencore believes to be the appropriate distribution of funding tenors for the categories of funded assets within the marketing activities, and the average rate of interest incurred by the group during the relevant period on borrowings of the relevant tenor and interest basis. The balance of group interest expense is allocated to industrial activities. See Section III: "Selected Historical and Other Information".

(8) Funds From Operations ("FFO") equals cash provided by operating activities before working capital changes less tax and net interest payments plus dividends received.

(9) Current capital employed is current assets, presented before assets held for sale, less accounts payable, other financial liabilities and income tax payable.

Summary of the Global Offer

The Global Offer is expected to comprise of an issue of 893,292,886 new Ordinary Shares and 238,782,586 existing Ordinary Shares which will be sold by the Selling Shareholder in the International Offer (1,132,075,472 Ordinary Shares in aggregate), in each case assuming the Offer Price is set at the mid-point of the Offer Price Range. An additional 113,207,547 new Ordinary Shares will also be made available by the Company pursuant to the Over-Allotment Option (assuming the Offer Price is set at the mid-point of the Offer Price Range). All Offer Shares will be subscribed for or purchased at the Offer Price.

On 4 May 2011, in connection with the International Offer, the Company entered into subscription agreements with certain cornerstone investors (including, in the case of the cornerstone investors that are private banks, the ultimate beneficial owners of the International Offer Shares subscribed for under the relevant Cornerstone Investment Agreements) (the "Cornerstone Investors") who have agreed, subject to customary conditions, to subscribe for International Offer Shares at the Offer Price (the "Cornerstone Investment Agreements"). In aggregate, Cornerstone Investors have committed U.S.$3.1 billion for the subscription of Offer Shares. Based on an Offer Price at the mid-point of the Offer Price Range, the total number of International Offer Shares subscribed for by the Cornerstone Investors would be approximately 350,943,389 International Offer Shares, which represent approximately 31.0 per cent. of the Offer Shares, assuming that the Over-allotment Option is not exercised and that the Kazzinc Consideration Shares are not issued.

Offer Shares made available under the International Offer can, at the election of the relevant investors, be initially registered on the Jersey principal share register and traded on the London Stock Exchange or initially registered on the Hong Kong branch share register and traded on the Hong Kong Stock Exchange. All Offer Shares made available under the Hong Kong Offer shall be initially registered on the Hong Kong branch share register and can be traded on the Hong Kong Stock Exchange.

The total expenses of the Global Offer that are payable by the Company together with Swiss federal issuance stamp tax payable in connection with the Restructuring and the Global Offer are expected to be approximately U.S.$434.6 million (assuming the Offer Price is set at the mid-point of the Offer Price Range).

FTSE eligibility

Following discussions with FTSE, it is anticipated that the Company will be included in the FTSE 100 under the fast entry rule (at close of business on the first day of official trading).

Use of proceeds

The net proceeds from the Global Offer receivable by the Company are estimated to be pounds sterling, U.S. dollar and Hong Kong dollar amounts equivalent in aggregate to U.S.$7,456.2 million, after deduction of estimated underwriting commissions and estimated expenses of the Global Offer (assuming the maximum amount of the Underwriter's incentive commission and the discretionary elements of the fees of the Company's other advisers will be paid and including applicable VAT), assuming the Over-Allotment Option is not exercised and assuming the Offer Price is set at the mid-point of the Offer Price Range and exchange rates as at 29 April 2011.

The Company currently intends to apply the proceeds from the Global Offer in the following order of priority:

- approximately U.S.$2.2 billion of the net proceeds from the Global Offer towards meeting the cash portion of the consideration payable to Verny, pursuant to the Kazzinc SPAs in respect of Glencore's proposed acquisition of additional stakes in Kazzinc;
- approximately U.S.$5 billion of the net proceeds from the Global Offer towards meeting its budgeted total aggregate capital expenditure for the next three calendar years (ending 31 December 2013). Items falling within this include funding of significant expansion projects in respect of Kazzinc (estimated: U.S.$834 million), Mopani (estimated: U.S.$512 million), Prodeco (estimated: U.S.$919 million), the West African Oil Assets (estimated: U.S.$791 million) and Glencore's other industrial assets (estimated: U.S.$900 million); and
- in order to reduce its cost of borrowing and improve financial flexibility, use of a portion of any proceeds that are not applicable to or, immediately required for, the above purposes to reduce drawings under the U.S.$11,905 million revolving credit facilities and repay various other debt obligations of the Glencore Group. Should growth opportunities arise in the future, Glencore could either draw-down any remaining facilities or put in place new facilities.

Dividend policy

The Company intends to pursue a progressive dividend policy with the intention of maintaining or increasing its total ordinary dividend each year.

Dividends are expected to be declared by the Board semi-annually (with the half-year results and the preliminary full year results). Interim dividends are expected to represent approximately one-third of the total dividend for any year. Dividends will be declared and paid in U.S. dollars, although Shareholders will be able to elect to receive their dividend payments in pounds sterling, Euros or Swiss Francs based on the exchange rates in effect at the date of payment. Shareholders on the Hong Kong branch register will receive their dividends in Hong Kong dollars.

The Directors currently expect to declare an interim dividend of U.S.$350 million in August 2011 concurrent with publication of the interim results for the six months to 30 June 2011.

Lock-ups

The Company has entered into a lock-up arrangement in favour of the Joint Global Co-ordinators for a period of six months from the date of UK Admission. In addition, each Existing Shareholder has entered

into a lock-up arrangement in favour of the Joint Global Co-ordinators and the Company for various periods from the date of UK Admission. These lock-up arrangements apply in the case of the Executive Directors until five years after UK Admission (with a staggered release after the first year of that period) and in the case of the other Existing Shareholders for a period of time of between one year and four years from Admission (with a staggered release after the first year of that period, if applicable). Furthermore, each Cornerstone Investor has entered into a lock-up arrangement in favour of the Joint Global Co-ordinators and the Company for a period of six months from the date of UK Admission. The lock-up arrangements are subject to certain exceptions.

Risk factors

Glencore's results of operations and financial condition could be materially adversely affected by the following risks:

Risks relating to Glencore

Glencore is exposed to risks related to:

- Declines in the current and expected volumes of supply or demand for commodities, to commodity prices and to deterioration in economic and financial conditions.
- Significant geopolitical risk.
- Liquidity risk.
- A reduction in Glencore's credit rating.
- Glencore's ability to attract, retain and compensate key employees may be impacted by its transition to a public company.
- Fluctuations in currency exchange and interest rates.
- Competition in the commodities industry.

Risks relating to Glencore's marketing activities

Glencore is exposed to risks related to:

- Its ability to identify and take advantage of arbitrage opportunities.
- The effectiveness of its hedging strategy.
- Counterparty risk.
- Risk management policies and procedures that may leave it exposed to unidentified or unanticipated risks.
- Reliance on third parties to source the majority of its products.
- Reliance on certain agreements for the sourcing of commodities.
- Significant amounts of freight, storage, infrastructure and logistics support required by its marketing activities and increases in costs thereof.
- Fluctuations in freight rates.

Risks relating to Glencore's industrial activities

Glencore is exposed to risks related to:

- Industrial assets through non-controlling stakes or joint ventures and strategic partnership arrangements.
- Delays in or failure to develop planned expansions or new projects.
- Operating risks and hazards at its industrial assets.
- Title to the land, resource tenure and extraction rights of industrial activities.
- Infrastructure at its industrial assets being adequate and remaining available.
- Increases in production costs.
- Stated mineral and hydrocarbon reserves, resources and mineralised potential are only estimates.

- The processes and chemicals used in Glencore's extraction and production methods and its shipping and storage activities.

Other risks relating to Glencore

Glencore is exposed to risks related to:

- Fraud and corruption due to the nature of its business and operations.
- Accidents at Glencore's industrial activities, logistics and storage facilities which could result in injuries and fatalities.
- Processing, storage and transportation of its commodities.
- Product safety and dangerous goods regulations.
- Dependence on its financial, accounting, marketing and other data processing information systems.
- The significant number of laws and regulations to which it is subject.
- Social, economic and other risks in the markets where Glencore operates which could cause disruptions to its business.
- Glencore's reputation in the communities in which it operates.
- Failure to make successful acquisitions or to integrate acquisitions effectively.
- A wide range of risks, not all of which can be covered, adequately or at all, by Glencore's insurance programme.
- The maintenance of positive employee relations and the ability to attract and retain skilled workers is key to the successful operation of Glencore's industrial activities.

Risks relating to an investment in the Ordinary Shares and the dual listing

- The price of the Ordinary Shares is subject to volatility.
- Future share issues by the Company and/or sales of Ordinary Shares could lower the market price of the Ordinary Shares. Further share issues or conversions of the Convertible Bonds could also dilute the interests of Shareholders.
- Shareholders in the U.S. may not be able to participate in future equity offerings.
- The rights afforded to Shareholders are governed by Jersey law. Not all rights available to shareholders under English law, Hong Kong law or U.S. law will be available to Shareholders.
- Foreign investors may find it difficult to enforce foreign judgments obtained against Glencore or any of its Affiliates.
- As a company due to be listed on the London Stock Exchange and the Hong Kong Stock Exchange, the Company will be subject to both United Kingdom and Hong Kong laws, regulations and policies and certain Hong Kong laws and regulations will not apply to the Company.

The Kazzinc transaction

Glencore has agreed with Verny to acquire additional stakes in Kazzinc. These purchases will increase its ownership from 50.7 per cent. to 93.0 per cent. for a total transaction consideration of U.S.$3.2 billion. Subject to satisfaction of certain conditions, which include receipt of applicable regulatory approvals and the occurrence of UK Admission, consideration for these purchases will be settled through the issuance of U.S.$1 billion of Ordinary Shares at the Offer Price (such issuance expected to occur at the earlier of UK Admission and satisfaction of applicable conditions precedent) and U.S.$2.2 billion in cash (to be paid in tranches between October and December 2011). The acquisition of these additional stakes is expected to be completed by the end of December 2011. The terms of the acquisition have been negotiated on an arm's length basis and the price and structuring of the consideration in respect of these purchases is based on Glencore's detailed valuation of Kazzinc. In addition, Glencore's stake in Kazzinc may be further increased to 99.4 per cent. through the exercise of a put or call option in respect of Verny Investments' remaining 6.4 per cent. interest in Kazzinc, which is conditional on amongst other things, an initial public offering of Kazzinc's gold assets.

Current Trading and Prospects

Introduction

Glencore's operating and financial performance over the first quarter of 2011 continued to benefit from improved market conditions as also experienced in the final months of 2010.

Marketing

Marketing operations began 2011 strongly with performance for the first quarter of 2011 in line with management expectations. In particular, following a challenging 2010, the oil division reported substantially improved results, more in line with 2009 performance, due to increased arbitrage opportunities as a result of market volatility and tighter supply conditions.

Industrial

Glencore's consolidated industrial activities and associates delivered a substantially improved performance over the first quarter of 2011, primarily on the back of a strong commodity price environment but also assisted by year-on-year production increases at many operations. Operating costs and capital expenditures, including expansion related capital expenditures, were broadly in-line with management expectations.

Summary and outlook

Overall, Glencore's businesses performed in line with management's expectations over the first quarter of 2011. Strong market conditions experienced in the first quarter are continuing into the second quarter of 2011. Despite recent events in Japan and the Middle East, the Directors remain confident that economic activity and commodity demand remain robust and Glencore remains well positioned for 2011. In this regard, the Directors reconfirm Glencore's previously announced intention to declare an interim dividend of U.S.$350 million in August 2011 concurrent with publication of the interim results for the six months to 30 June 2011.

An investment in the Company's Ordinary Shares involves a significant degree of risk. Investors should carefully consider the risks and uncertainties described below and the other information contained in this Prospectus before making an investment decision. Glencore's business, results of operations, financial condition and/or prospects could be materially and adversely affected by any of these risks. The trading price of the Company's Ordinary Shares could decline due to any of these risks or other factors, and you may lose all or part of your investment. The risks described below are not the only ones which Glencore faces. The risks described below are those that Glencore currently believes may materially affect it and the Ordinary Shares and the list is not exhaustive. Additional risks and uncertainties not currently known to Glencore, or those that it currently deems to be immaterial, may become material and adversely affect Glencore's business, results of operations, financial condition, prospects and/or the value of the Ordinary Shares. This Prospectus also contains estimates and projections that involve risks and uncertainties. Glencore's results may differ significantly from those previously projected as a result of certain factors, including the risks which it faces, as described below and in other sections of this Prospectus. The order in which the following is presented does not necessarily reflect the likelihood of their occurrence or the relative magnitude of their potential material adverse effect on Glencore's business, results of operations, financial condition, prospects and/or the value of the Ordinary Shares.

Risks relating to Glencore

Glencore is exposed to declines in the current and expected volumes of supply or demand for commodities, to commodity prices and to deterioration in economic and financial conditions.

The current and expected volumes of supply and demand for the commodities in which Glencore is active vary over time based on changes in resource availability, government policies and regulation, costs of production, global and regional economic conditions, demand in end markets for products in which the commodities are used, technological developments, including commodity substitutions, fluctuations in global production capacity, global and regional weather conditions and natural disasters including, for example, the recent earthquake and tsunami in Japan, all of which impact global markets and demand for commodities. Furthermore, changes in current and expected supply and demand conditions impact the current and expected future prices (and thus the price curve) of each commodity.

Declines in the volume of each commodity produced or marketed by Glencore, as well as declines in the price of commodities, could materially adversely impact Glencore's business, results of operations and earnings. These declines could result in a reduction in the average marketing unit margin achieved in respect of the volumes handled by Glencore's marketing activities, or a reduction in the volume and/or margin in respect of commodities produced by Glencore's industrial assets.

In addition, a decline in economic and financial conditions globally or in a specific country, region or sector may have a material adverse effect on Glencore's business, results of operations or earnings. For example:

- the insolvency of key suppliers, particularly those with whom Glencore has long-term supply or off-take contracts, could result in supply chain difficulties and/or unmatched commodity price exposures and/or a reduction in commodities available for Glencore's marketing activities;
- although most commodities' fixed pricing periods are relatively short, a significant reduction or increase in commodity prices could result in customers or suppliers, as the case may be, being unwilling or unable to honour their contractual commitments to purchase or sell commodities on pre-agreed pricing terms;
- a tightening of available credit may make it more difficult for Glencore to obtain, or may increase the cost of obtaining, financing for its marketing activities and capital expenditures at its industrial assets;
- a decline in the value of inventories may result in write-downs; and
- production at Glencore's industrial assets may be curtailed or suspended as it becomes not economically viable.

In the first half of 2009, Glencore's financial results were adversely impacted by the failure of various customers to perform under certain pricing contracts primarily related to Glencore's coal business. Glencore believes these customers failed to perform, in part, because the global financial crisis put significant strain on their financial condition, liquidity profiles and customer base which was compounded by being faced with paying significantly higher prices for commodities under the contracts with Glencore than what they would have had to pay in the spot market. Should Glencore experience similar customer

failure in the future as a result of economic factors or otherwise, its business, results of operations and earnings could be adversely affected.

Glencore is exposed to significant geopolitical risk.

Glencore operates and owns assets in a large number of geographic regions and countries and, as a result, is exposed to a wide range of political, regulatory and tax environments. These environments are subject to change in a manner that may be materially adverse for Glencore, including changes to government policies and regulations governing industrial production, foreign investors, price controls, export controls, tariffs, income and other forms of taxation (including policies relating to the granting of advance rulings on taxation matters), nationalisation or expropriation of property, repatriation of income, royalties, the environment and health and safety.

Relatively high commodity prices and other factors in recent years have resulted in increased resource nationalism in some countries, with governments repudiating or renegotiating contracts with, and expropriating assets from, companies that are producing in such countries. Many of the commodities that Glencore produces and markets are considered strategic resources for particular countries. Governments in these countries may decide not to recognise previous arrangements if they regard them as no longer being in the national interest. Governments may also implement export controls on commodities regarded by them as strategic (such as oil or wheat) or place restrictions on foreign ownership of industrial assets. Renegotiation or nullification of existing agreements, leases, permits or tax rulings, changes in fiscal policies (including new or increased taxes or royalty rates or the implementation of a windfall tax) and currency restrictions imposed by the governments of countries in which Glencore operates could all have a material adverse effect on Glencore.

Glencore has experienced nationalisation and expropriation of certain of its industrial assets and significant changes in the taxation regime applicable to specific assets in the past. For example, in 2007, the Bolivian government nationalised a smelter owned by a subsidiary of Glencore. However, in that instance, no material losses were sustained and Glencore continues to do business in Bolivia. In addition, in 2009, the government of Bolivia enacted a new constitution which requires mining entities to form joint ventures with the government. Glencore has entered into good faith negotiations with the government regarding this requirement, and a resolution of the issue is expected to be announced by the government in the near future. Glencore does not expect this resolution to have a material economic impact on the Group. While these particular incidents have not had a material adverse effect on Glencore's results or operations, it continues to do business in locations where it is exposed to a greater-than-average risk of overt or effective expropriation or nationalisation, including in countries where the government has previously (and in some cases, recently) expropriated assets held within the jurisdiction of other companies or where members of the government have publicly proposed that such action be taken.

Glencore's operations may also be affected by political and economic instability in the countries in which it operates. Such instability could be caused by, among other things, terrorism, civil war, guerrilla activities, military repression, civil disorder, crime, workforce instability, change in government policy or the ruling party, economic or other sanctions imposed by other countries, extreme fluctuations in currency exchange rates or high inflation.

The geopolitical risks associated with operating in a large number of regions and countries, if realised, could affect Glencore's ability to manage or retain interests in its industrial activities and could have a material adverse effect on the profitability, ability to finance or, in extreme cases, viability of one or more of its industrial assets. Although Glencore's industrial assets are geographically diversified across various countries, disruptions in certain of its industrial operations at any given time could have a material adverse effect on Glencore's marketing business.

Liquidity risk and a failure to obtain funds could limit Glencore's ability to engage in desired activities and grow its business.

Liquidity, or ready access to funds, is essential to Glencore's business. Liquidity risk is the risk that Glencore is unable to meet its payment obligations when due, or that it is unable, on an ongoing basis, to borrow funds in the market on an unsecured or secured basis at an acceptable price to fund actual or proposed commitments. A lack of liquidity may mean that Glencore will not have funds available to maintain or increase its marketing activities, grow its industrial activities production output as planned or take advantage of other opportunities that may arise in its marketing or industrial activities.

Glencore's marketing activities employ significant amounts of working capital to fund purchases of commodities for future delivery to Glencore's end customers, to meet margin requirements under derivative contracts and to fund the acquisition and maintenance of certain transport and storage assets which complement its marketing activities. Continued funding of and access to working capital is critical for Glencore to maintain its historic levels of marketing activity and increase such levels in the future. Glencore's industrial activities are also capital intensive and the continued funding of such activities is critical for Glencore to maintain its ownership interests in its industrial assets, to maintain production levels in periods when net operating cash flow is negative or insufficient to cover capital expenditures, to increase production levels in the future in accordance with its business plan and to grow its industrial activities through the acquisition of new assets. Glencore has budgeted a total aggregate capital expenditure of approximately U.S.$5 billion for the three calendar years ending 31 December 2013. Glencore expects to fund its planned capital expenditure from proceeds from the Global Offer.

Prudent liquidity risk management requires Glencore to maintain sufficient cash and cash equivalents through the accumulation of retained earnings and to have ready sources of committed funding available to meet anticipated and unanticipated funding needs. While Glencore adjusts its minimum internal liquidity targets in response to changes in market conditions, its liquidity may be impaired due to circumstances it is unable to control, such as general market disruptions, increases in the prices of commodities or an operational problem that affects its suppliers or customers or Glencore itself.

In addition to maintaining a cash position, Glencore relies on two other principal sources of liquidity: borrowings under various short-term and long-term bank and asset-backed facilities and issuance of notes in the debt capital markets. An inability to raise money in the long-term and short-term debt markets could have a material adverse effect on Glencore's liquidity. Glencore's access to debt in amounts adequate to finance its activities could be impaired by factors that affect Glencore in particular or the industries or geographies in which it operates. For example, lenders could develop a negative perception of Glencore's short-term or long-term financial prospects if Glencore incurred large losses, if the level of its marketing activities were to materially decrease due to a market downturn in the demand for commodities, or if its business was otherwise materially adversely affected. Although Glencore expects the continued support of financial institutions, there can be no assurance that additional credit or funding will be made available in the future.

Future debt financing, if accessible, may result in increased borrowing costs, increased financial leverage, decreased income available to fund further acquisitions and expansions and the imposition of restrictive covenants on Glencore's businesses and operations. In addition, future debt financing may limit Glencore's ability to withstand competitive pressures and render its businesses more vulnerable to economic downturns by exposing it to volatile interest rates, tighter credit markets and potentially reduced access to funding that may be needed to take advantage of future business opportunities.

A reduction in Glencore's credit rating could adversely affect Glencore.

Glencore's borrowing costs and access to the debt capital markets, and thus its liquidity, depend significantly on its public credit ratings. These ratings are assigned by rating agencies, which may reduce or withdraw their ratings or place Glencore on "credit watch", which would have negative implications. A deterioration of Glencore's credit ratings could increase its borrowing costs and limit Glencore's access to the capital markets, which, in turn, could reduce Glencore's earnings and adversely affect Glencore's liquidity.

Glencore's counterparties, including its customers, suppliers and financial institutions, are also sensitive to the risk of a ratings downgrade and may be less likely to engage in transactions with Glencore, or may only engage with Glencore at a substantially higher cost or on increased credit enhancement terms (e.g. letters of credit, additional guarantees or other credit support) which carry increased costs, if Glencore's ratings were downgraded to below investment grade. While Glencore does not anticipate its ratings to be downgraded below investment grade, if such an event were to occur, it could have a material adverse effect on Glencore's business, results of operations, financial condition or prospects.

Glencore's ability to attract, retain and compensate key employees may be impacted by its transition to a public company.

Glencore has operated within a private company structure and as an employee-owned company. Following Admission, Glencore, as a listed entity, will operate as a public company with the added administration this entails. This cultural change could result in certain key employees, whether skilled marketers, or otherwise, leaving. There are a number of other reasons why such personnel may leave. An employee may leave

Glencore to go to a competitor, to start their own business, to retire or for other reasons. In addition, based on the Offer Price Range, the Ordinary Shares issued to Existing Shareholders in the Restructuring will have a value significantly above the redemption value of Existing Shareholders' pre-Restructuring ownership interests. However, Glencore is not expecting an above-normal level of retirements shortly after Admission. Notwithstanding the high level of employee ownership, there are no secondary sales in the Global Offer by any employee or Director other than to fund expected personal tax liabilities triggered in connection with the Restructuring and/or Admission and to repay to Glencore a small tranche of outstanding loans and all Existing Shareholders are subject to lock-up arrangements ranging from 12 months, to staggered lock-ups of up to five years in the case of the Executive Directors, such lock-ups not being dependent upon continued employment.

Glencore seeks to provide competitive compensation arrangements to retain and attract highly skilled personnel that are important to its business, including salaries, bonus arrangements and share incentive arrangements. The Directors believe that Glencore's current compensation arrangements are competitive and adequate to allow Glencore to retain and attract the necessary calibre of employees. However, these compensation payments may not be as effective as the opportunity to receive ownership interests in Glencore that existed prior to the Restructuring and, as a result, Glencore may need to change its compensation arrangements to make them more attractive to such employees which could be at an increased cost to Glencore. The loss of any senior marketer, senior manager or other key personnel, as well as the inability to retain and/or attract new highly skilled personnel, could have a material adverse effect on Glencore's business.

Glencore is exposed to fluctuations in currency exchange and interest rates.

The significant majority of transactions undertaken by both Glencore's marketing and industrial activities are denominated in U.S. dollars. However, Glencore is exposed to fluctuations in currency exchange rates:

- through its industrial activities, because a large proportion of the operating costs of these assets are denominated in the currency of the country in which each asset is located, the largest of such currency exposures being to the Australian dollar, the Kazakhstan tenge and the Canadian dollar via Glencore's stake in Xstrata;
- through the costs of Glencore's global office network, which are denominated largely in the currency of the country in which each office is located, the largest of such currency exposures being to the Swiss franc, the pound sterling and the Euro; and
- through its marketing activities, although only a small minority of purchase or sale transactions are denominated in currencies other than U.S. dollars.

In respect of commodity purchase and sale transactions denominated in currencies other than U.S. dollars, Glencore generally hedges the specific future commitment through a forward exchange contract. Foreign exchange rates have seen significant fluctuation in recent years and a depreciation in the value of the U.S. dollar against one or more of the currencies in which Glencore incurs significant costs will therefore result in an increase in the cost of these operations in U.S. dollar terms and could adversely affect Glencore's financial results.

As discussed above, the reporting currency and the functional currency of the majority of Glencore's operations is the U.S. dollar, as this is assessed to be the principal currency of the economic environment in which Glencore operates. For financial reporting purposes, transactions in foreign currencies are converted into the functional currency of each entity using the exchange rate prevailing at the transaction date. Monetary assets and liabilities outstanding at year end are converted at year-end rates. The resulting exchange differences are recorded in the consolidated statement of income. The exchange rates between relevant local currencies and the U.S. dollar have historically fluctuated, and the translation effect of such fluctuations may have a material adverse effect on both Glencore Group members' individual and Glencore's consolidated results of operations or financial condition.

Glencore's exposure to changes in interest rates results from investing and borrowing activities undertaken to manage its liquidity and capital requirements. Substantially all of Glencore's borrowings, other than its long-term, fixed-rate public bonds, bear interest at floating rates. An increase in interest rates would therefore result in a relatively immediate increase in the cost of servicing Glencore's indebtedness and could adversely affect Glencore's financial results. Although borrowing costs are taken into account when setting transaction terms, there is no assurance that increased financing costs can be passed on to customers and/or suppliers. Glencore may elect in the future to enter into interest rate swaps to convert some or all of its floating-rate debt to fixed-rate debt or enter into fixed-rate to floating-rate swaps. There

can be no assurance that Glencore will not be materially adversely affected by interest rate changes in the future.

The commodities industry is very competitive and Glencore may have difficulty effectively competing with other commodity marketing and industrial companies.

The commodities industry is characterised by strong competition. Glencore believes that the majority of its competitors tend to focus on a narrower commodity group or geographic area, or concentrate more heavily on industrial activities such as mining, smelting, processing, refining and food processing. Although Glencore faces intense competition in each of its business segments, in view of Glencore's diversification across different commodity groups and its global geographical presence and scale, Glencore does not believe that there is a precisely comparable company or peer group that can be defined as competing directly with Glencore across all of its business segments. However, some of these competitors or existing producers may, in the future, use their resources to broaden into all of the markets in which Glencore operates and therefore compete further against Glencore. These competitors may also expand and diversify their commodity sourcing, processing or marketing operations, or engage in pricing or other financial or operational practices that could increase competitive pressure on Glencore across each of its business segments. Increased competition may result in losses of market share for Glencore and could materially adversely affect Glencore's business, results of operations and financial condition.

Risks relating to Glencore's marketing activities

The success of Glencore's marketing activities depends in part on its ability to identify and take advantage of arbitrage opportunities.

Many of the commodity markets in which Glencore operates are fragmented and periodically volatile. As a result, discrepancies generally arise in respect of the prices at which the commodities can be bought or sold in different forms, geographic locations or time periods, taking into account the numerous relevant pricing factors, including freight and product quality. These pricing discrepancies can present Glencore with arbitrage opportunities whereby Glencore is able to generate profit by sourcing, transporting, blending, storing or otherwise processing the relevant commodities. Whilst the strategies used by Glencore's business segments to generate such margin vary from commodity to commodity, the main arbitrage strategies can be generally described as geographic-, product- and time-related. For further details on these arbitrage strategies, please see Section I: "Information on Glencore".

Glencore's profitability is, in large part, dependent on its ability to identify and exploit such arbitrage opportunities. A lack of such opportunities, for example due to a prolonged period of pricing stability in a particular market, or an inability to take advantage of such opportunities when they present themselves, because of, for example, a shortage of liquidity or an inability to access required logistics assets or other operational constraints, could adversely impact Glencore's business, results of operations and financial condition.

Glencore's hedging strategy may not always be effective and does not require all risks to be hedged.

Glencore's marketing activities involve a significant number of purchase and sale transactions across multiple commodities. To the extent Glencore purchases a commodity from a supplier and does not immediately have a matching contract to sell the commodity to a customer, a downturn in the price of the commodity could result in losses to Glencore. Conversely, to the extent Glencore agrees to sell a commodity to a customer and does not immediately have a matching contract to acquire the commodity from a supplier, an increase in the price of the commodity could result in losses to Glencore, as it then seeks to acquire the underlying commodity in a rising market. In order for Glencore to mitigate the risks in its marketing activities related to commodity price fluctuations and potential losses, Glencore has a policy, at any given time, of hedging substantially all of its marketing inventory not already contracted for sale at pre-determined prices through futures and swap commodity derivative contracts, either on commodities' exchanges or in the over the counter ("OTC") market. In the event of disruptions in the commodity exchanges or markets on which Glencore engages in these hedging transactions, Glencore's ability to manage commodity price risk may be adversely affected and this could in turn materially adversely affect its business, financial condition and results of operations.

In addition, there are no traded or bilateral derivative markets for certain commodities that Glencore purchases and sells, which limits Glencore's ability to fully hedge its exposure to price fluctuations for these commodities. In these instances, Glencore's ability to hedge its commodity exposure is limited to forward contracts for the physical delivery of a commodity or futures and swap contracts for a different, but

seemingly related, commodity. For example, Glencore hedges physical concentrate positions using future contracts for the estimated payable metal contained in the concentrate, with the expectation that the relative value of these two commodities will change in a similar way. If, however, the relative value of the two commodities changes in a direction or manner that Glencore does not anticipate, Glencore may suffer a loss in those commodity positions. Furthermore, there are certain commodities, such as ferroalloys and alumina, where hedging is limited by the lack of a liquid market. Finally, subject to internal risk management, limits and policies, in some cases, Glencore takes deliberate directional positions without a corresponding opposite directional position in place as part of its marketing strategies which has, at certain points in the past resulted, and may in the future, result in losses. For further detail on Glencore's financial risk management strategies and policies, see Section IV: "Operating and Financial Review".

Glencore is subject to counterparty risk in its marketing activities.

Glencore's marketing activities are subject to non-performance risk by its suppliers, customers and hedging counterparties. For example:

- a significant increase in commodity prices could result in suppliers being unwilling to honour their contractual commitments to sell commodities to Glencore at pre-agreed prices;
- a significant reduction in commodity prices could result in customers being unwilling or unable to honour their contractual commitments to purchase commodities from Glencore at pre-agreed prices, as occurred in 2008 and 2009 during the global economic crisis;
- customers may take delivery of commodities from Glencore and then find themselves unable to honour their payment obligations due to financial distress or any other reasons; and
- hedging counterparties may find themselves unable to honour their contractual commitment due to financial distress or other reason.

Glencore seeks to reduce the risk of customer non-performance by requiring credit support from creditworthy financial institutions, where appropriate, and by imposing limits on open accounts extended. In addition, mark-to-market exposures in relation to hedging contracts are regularly and substantially collateralised (primarily with cash) pursuant to margining arrangements in place with such hedge counterparts. However, no assurance can be given that Glencore's attempts to reduce the risk of customer non-performance will be successful in every instance or that its financial results will not be adversely affected by the failure of a counterparty or counterparties to fulfil their contractual obligations in the future. Such failure would have an adverse impact on Glencore's business, results of operations and financial condition, including by creating an unintended, unmatched commodity price exposure.

Glencore's risk management policies and procedures may leave it exposed to unidentified or unanticipated risks.

Glencore's marketing activities are exposed to commodity price, foreign exchange, interest rate, counterparty (including credit), operational, regulatory and other risks. Glencore has devoted significant resources to developing and implementing policies and procedures to manage these risks and expects to continue to do so in the future. Nonetheless, Glencore's policies and procedures to identify, monitor and manage risks have not been fully effective in the past and may not be fully effective in the future.

Some of Glencore's methods of monitoring and managing risk are based on historical market behaviour that may not be an accurate predictor of future market behaviour. Other risk management methods depend on evaluation of information relating to markets, suppliers, customers and other matters that are publicly available or otherwise accessible by Glencore. This information may not in all cases be accurate, complete, up to date or properly evaluated. Management of operational, legal and regulatory risk requires, among other things, policies and procedures to properly record and verify a large number of transactions and events, and these policies and procedures may not be fully effective in doing so. Management of counterparty credit risk is mitigated with the use of credit enhancement products, including letters of credit, insurance and bank guarantees, but such risk cannot be eliminated entirely. Failure to mitigate all risks associated with Glencore's business could have a material adverse effect on Glencore's business, results of operations and financial condition.

Glencore uses, among other techniques, Value-at-Risk, or VaR, as a key risk measurement technique for its marketing activities. VaR does not purport to represent actual gains or losses in fair value on earnings to be incurred by Glencore, nor does Glencore expect that VaR results are indicative of future market movements or representative of any actual impact on its future results. VaR has certain limitations; notably, the use of historical data as a proxy for estimating future events, market illiquidity risks and tail

risks. While Glencore recognises these limitations and continuously refines its VaR analysis, there can be no assurance that its VaR analysis will be an effective risk management methodology. For further details on Glencore's VaR calculations and analysis, please see Section IV: "Operating and Financial Review".

Glencore is reliant on third parties to source the majority of the commodities purchased by its marketing operations.

Glencore purchases a minority portion of the physical commodities sold by its marketing activities from its controlled industrial operations and associates, including Xstrata. The remainder of the commodities sourced by its marketing operations are purchased from third party suppliers and entities in which Glencore has a minority stake (excluding associates). For the year ended 31 December 2010, Glencore's marketing operations sourced approximately 69 per cent. of its commodity purchases from such third parties (excluding oil purchases). Glencore expects to continue to source commodities from such third parties in the future.

Glencore is exposed to both price and supply risks with respect to commodities sourced from third parties and entities in which it holds a minority stake. Any increases in Glencore's purchase price relative to the price at which Glencore markets a commodity could adversely affect Glencore's margins. Glencore's business, results of operations, financial condition and prospects could be materially adversely impacted if it is unable to continue to source required volumes of commodities from its suppliers on reasonable terms or at all.

Glencore relies on certain agreements for the sourcing of commodities and these agreements may be terminated or fail to be renewed.

Glencore is a party to various contracts with certain of its non-controlled industrial assets for the supply of commodities to its marketing business. Glencore has various spot and long-term agreements, including with Xstrata for the supply of copper, nickel, zinc, alloys and cobalt, with Nyrstar for the supply of zinc/lead and with UC Rusal and Century Aluminum for the supply of alumina and aluminium. For details of Glencore's arrangement with Xstrata, please see Section I: "Information on Glencore".

These agreements are an important source of commodities for Glencore's marketing activities and provide certainty of regular supply for Glencore. These supply agreements range from short-term spot contracts to multiple years in duration and have historically been renewed by Glencore and the supplier on commercially acceptable terms. However, in general, these companies have no obligation to renew their supply agreements. Glencore may not be able to compel the relevant company to enter into or renew a supply agreement with Glencore in cases where Glencore does not own 100 per cent. of the company or where related party transaction minority shareholder approval requirements apply. Purchases from Xstrata, UC Rusal, Nyrstar and Century Aluminum represented approximately 10.5 per cent. of Glencore's marketing purchases in the year ended 31 December 2010. Glencore relies on these agreements to source many of its key commodities and any termination or failure to renew such contracts at the end of their terms could have an adverse effect on Glencore's business, results of operations and financial condition. For further details on these arrangements, please see Section I: "Information on Glencore".

Glencore's marketing activities require access to significant amounts of freight, storage, infrastructure and logistics support and Glencore is exposed to increases in the costs thereof.

Glencore's marketing activities entail shipments of commodities in large quantities, often by ocean-going transport. Glencore often competes with other producers, purchasers or marketers of commodities or other products for limited storage and berthing facilities at ports and freight terminals, which can result in delays in loading or unloading Glencore's products and expose Glencore to significant delivery interruptions. Limitations or interruptions in rail, shipping or port capacity could impede Glencore's ability to deliver its products on time. In addition, increases in the costs of freight could adversely affect Glencore's business, results of operations or financial condition.

Glencore also requires significant storage capacity for its commodities, which it sources both through facilities in which Glencore holds equity stakes and pursuant to rental agreements with, among others, oil terminals and tank farms, metal and other warehouses and silos. Any decrease in Glencore's ability to access its customary levels of capacity from these storage facilities or an increase in the price at which Glencore can acquire storage capacity could have an adverse effect on Glencore's business by forcing Glencore to use storage facilities in less advantageous locations or at prices that make it less profitable for Glencore to supply its customers.

Coal is a bulk product, with unit freight costs often representing a significant portion of its price. As such, large fluctuations in unit freight costs could have a significant impact on the profitability of Glencore's marketing activities in respect of this commodity. Freight for coal, as well as certain other commodities, is sourced primarily through third parties and any difficulties accessing the necessary freight capacity on acceptable commercial terms could have an adverse effect on Glencore's business, results of operations or financial condition.

The Directors believe that Glencore's large size, global reach and longstanding relationships with third party suppliers of freight give it an advantage in ensuring its commodity transport needs are met. However, there can be no guarantee that Glencore will continue to be able to access freight to support its operations in adequate quantities or at reasonable prices.

Glencore's oil freight operations are affected by fluctuations in freight rates.

Glencore's oil freight desk has a large and diversified fleet of 203 vessels, as at 31 December 2010, operated under various short- and long-term time charters and commercial management arrangements; of which 176 vessels are held under time charter, both from third party owners and from Glencore's own joint-venture and 100 per cent. equity interests, and another 27 vessels are commercially managed for third party owners (not leased or owned). The average remaining fixed charge hire period for the majority of 176 vessels under time charter was approximately two years at such date. In total, Glencore has equity interests in 41 vessels, which are delivered or currently under construction, with expected progressive delivery until March 2012. The majority of these vessels service Glencore's Energy Products business segment.

The freight desk deals with other product desks on an arm's length basis and the other desks are able to "contract" with the freight desk or third party vessel operators; however, Glencore's oil freight desk has a last refusal right. Due to its internal requirements and the Directors' belief in Glencore's ability to achieve vessel utilisation above average industry levels, Glencore generally has a long position in fleet time chartering, thereby creating a significant exposure to fluctuations in spot freight rates. Freight rates are driven by, and generally follow, global patterns of economic development and trade. However, they are also influenced by developments and changes in seaborne and other transportation patterns, new shipbuilding supply, consumption and sourcing patterns, changes in weather patterns, environmental concerns, political conditions, armed conflicts, changes to regulatory regimes, canal and port closures, changes in fuel and lubricant prices, foreign exchange fluctuations, embargoes and strikes. Assuming Glencore holds a long position in freight at any given time, a decrease in freight rates could have a material adverse effect on the performance of Glencore's Energy Products business segment and, in turn, have a material adverse impact on Glencore's overall results of operations and financial condition.

The recent economic downturn led to a significant reduction in freight rates and had an adverse effect on the performance of the freight desk, which experienced significant losses in 2009 and 2010. While freight spot rates have recovered to some extent in the current year, there has yet to be a sustained improvement. There can be no assurance that freight losses will not be experienced in the future, which could have a material adverse effect on Glencore's business, results of operations and financial condition.

Risks relating to Glencore's industrial activities

Glencore holds some of its industrial assets through non-controlling stakes or joint ventures and strategic partnership arrangements.

Glencore does not control a number of its most significant industrial investments (including its stakes in Xstrata, Century Aluminum, Mutanda and UC Rusal). Although Glencore has sought to take steps to protect its industrial activities where it does not exercise control (including entering into a relationship agreement with respect to Xstrata and a shareholders agreement with respect to UC Rusal), the boards of these companies may:

- have economic or business interests or goals that are inconsistent with or are opposed to those of Glencore;
- exercise veto rights or take shareholders' decisions so as to block actions that Glencore believes to be in its best interests and/or in the best interests of all shareholders;
- take action contrary to Glencore's policies or objectives with respect to its investments or commercial arrangements; or

- as a result of financial or other difficulties, be unable or unwilling to fulfil their obligations under any joint venture or other agreement, such as contributing capital to expansion or maintenance projects.

Where projects and operations are controlled and managed by Glencore's co-investors or where control is shared on an equal basis, Glencore may provide expertise and advice, but it has limited or restricted ability to mandate compliance with Glencore's policies and/or objectives. Improper management or ineffective policies, procedures or controls of a non-controlled entity could adversely affect the business, results of operations and financial condition of the relevant investment and, therefore, of Glencore.

Glencore is exposed to the risk of delays in or failure to develop planned expansions or new projects.

Glencore has a number of significant expansions planned for its existing operations and plans for certain new greenfield projects, which Glencore estimates will require capital expenditure of approximately U.S.$5 billion for the three calendar years ending 31 December 2013. See Section IV: "Operating and Financial Review" for a further discussion of this capital expenditure.

The timing, implementation and cost of Glencore's expansion and development projects are subject to a number of risks, including:

- Glencore's continued ability or willingness to fund these projects if their free cash flow generation or prospects are not deemed sufficient;
- the failure to obtain, or termination of, necessary leases, licences, permits, consents and approvals;
- the effects of changes in laws and regulations affecting the countries and industries in which the relevant companies operate;
- construction difficulties, including difficulties related to shortages of equipment, labour or materials;
- work stoppages, weather interferences, unforeseen engineering, design, environmental or geological problems, or unanticipated cost increases;
- instability of production following commissioning;
- underestimation or mismanagement of project risks;
- changes in economic conditions, including a decline in the price of commodities, an increase in expected operational or capital expenditure costs and adverse movements in foreign exchange rates;
- the adverse exercise of regulatory discretion by relevant governments in countries or regions in which the companies engaged in the expansion operate;
- the effects of international and domestic political events; and
- the effects of future litigation, if any.

Any future upward revisions in estimated project costs, delays in completing planned expansions, cost overruns, suspension of current projects or other operational difficulties after commissioning, as a result of the above factors or otherwise, may have a material adverse effect on Glencore's business, results of operations and financial condition, in turn requiring Glencore to consider delaying discretionary expenditures, including capital expenditures, or suspending or altering the scope of one or more of its development projects.

Exploration and development of oil producing assets is highly uncertain. If Glencore is unsuccessful in developing its oil producing assets, its results of operations and growth prospects may be adversely affected.

In addition, there can be no assurance that Glencore will be able to effectively manage the risks arising from expansion of its operations. Glencore's current systems, procedures and controls may need to be expanded and strengthened to support Glencore's future operations. Any failure of Glencore to effectively manage its expansion plans or expanded operations could have a material adverse effect on Glencore's business and results of operations. There is no certainty that all or any of the elements of Glencore's current expansion strategy as described in this Prospectus will be delivered.

Once complete, the results of these projects could differ materially from those anticipated by Glencore and Glencore's significant capital expenditures related to these projects may not be offset by cashflows or other benefits from these projects in the timeframe anticipated by Glencore or at all.

Glencore's industrial activities involve a number of operating risks and hazards, many of which are outside Glencore's control.

Glencore's business is subject to numerous operating risks and hazards normally associated with the development and operation of natural resource projects, many of which are beyond Glencore's control. These operating risks and hazards include unanticipated variations in grade and other geological problems, seismic activity, climatic conditions such as flooding or drought, metallurgical and other processing problems, technical failures, unavailability of materials and equipment, industrial actions or disputes, industrial accidents, labour force disruptions, unanticipated transportation constraints, tribal action or political protests, force majeure factors, environmental hazards, fire, explosions, vandalism and crime. These risks and hazards could result in damage to, or destruction of, properties or production facilities, may cause production to be reduced or to cease at those properties or production facilities, may result in personal injury or death, environmental damage, business interruption and legal liability and may result in actual production differing from estimates of production, including those estimates contained in this Prospectus.

The realisation of such operating risks and hazards and the costs associated with them could materially adversely affect Glencore's business, results of operations and financial condition, including by requiring significant capital and operating expenditures to abate the risk or hazard, restore Glencore or third party property, compensate third parties for any loss and/or pay fines or damages.

Title to the land, resource tenure and extraction rights of industrial activities may be challenged.

Glencore has industrial activities investments in certain countries where title to land and rights in respect of land and resources (including indigenous title) has not been and may not always be clear, creating the potential for disputes over resource development. While Glencore does not believe that any such disputes are imminent, such a dispute, if related to a material industrial asset, could disrupt or delay relevant mining, processing or other projects and/or impede Glencore's ability to develop new industrial properties and may have a material adverse effect on Glencore's business, results of operations and financial condition.

Title to Glencore's mining and hydrocarbon rights may be challenged or impugned, and title insurance may not generally be available. In many cases, the government of the country in which a particular asset is located is the sole authority able to grant such rights and, in some cases, may have limited infrastructure and limited resources which may severely constrain Glencore's ability to ensure that it has obtained secure title to individual exploration licences or extraction rights. Glencore's title may be affected by, among other things, undetected defects. In addition, Glencore may be unable to conduct its activities or operations as permitted or to enforce its rights with respect to its properties. A successful challenge to Glencore's mining and/or hydrocarbon extraction rights may result in Glencore being unable to proceed with the development or continued operation of a mine or project which, in turn, may have a material adverse effect on Glencore's business, results of operations and financial condition.

The production, processing and product delivery capabilities of Glencore's industrial assets rely on their infrastructure being adequate and remaining available.

The mining, drilling, processing, development and exploration activities of the industrial assets in which Glencore holds an interest depend on adequate infrastructure. Certain of these assets are located in areas that are sparsely populated and difficult to access. Reliable roads, power sources, transport infrastructure and water supplies are essential for the conduct of these operations and the availability and cost of these utilities and infrastructure affect capital and operating costs and therefore Glencore's ability to maintain expected levels of production and results of operations. Unusual weather or other natural phenomena, sabotage or other interference in the maintenance or provision of such infrastructure could impact the development of a project, reduce production volumes, increase extraction or exploration costs or delay the transportation of raw materials to the mines and projects and commodities to end customers. Any such issues arising in respect of the infrastructure supporting or on Glencore's sites could have a material adverse effect on Glencore's business, results of operations, financial condition and prospects.

Industrial activities are exposed to an increase in production costs, including as a result of increased energy costs or shortages of equipment, spare parts and labour.

In relation to Glencore's industrial activities, Glencore's main production expenses include personnel expenses, maintenance and repairs, raw materials, energy and contractors. Increased costs could result from a number of factors beyond Glencore's control, including increased charges for fuel, other

consumables, electricity, transport or site contractors or increased processing or storage costs for such commodities.

Furthermore, the resources industry is currently experiencing worldwide tightness in certain equipment, spare parts and specialised labour. Such shortages may increase the costs of Glencore's operations as a result of equipment, spare parts or labour becoming more expensive due to increased demand and tight supply. Such shortages may also cause delays to, and quality issues in respect of, Glencore's operations either as a result of equipment used in Glencore's operations being temporarily unavailable or not being available at all or there being insufficient resources to operate equipment or maintain production at the optimum capacity. Any resulting increase in costs or production delays could have a material adverse effect on Glencore's business, results of operations and financial condition.

Glencore's stated mineral and hydrocarbon reserves, resources and mineralised potential are only estimates and the anticipated volumes or grades may not be achieved.

The estimated resources described in this Prospectus should not be interpreted as a statement of the commercial viability, potential or profitability of any future operations. No assurance can be given that the anticipated tonnages and grades will be achieved, that the indicated level of recovery will be realised or that mineral and hydrocarbon reserves, resources and mineralised potential can be extracted or processed profitably. Actual reserves, resources or mineralised potential may not conform to geological, metallurgical or other expectations, and the volume and grade of ore or product recovered may be below the estimated levels. Lower market prices, increased production costs, reduced recovery rates and other factors may render Glencore's reserves, resources or mineralised potential uneconomic to exploit and may result in revision of its reserve estimates from time to time. Reserve data are not indicative of future results of operations. For assets outside the scope of the independent technical reports contained in Section XIV: "Independent Technical Reports", reserve data are based on information collected by Glencore. If Glencore's actual mineral and hydrocarbon reserves and resources are less than current estimates or if Glencore fails to develop its resource base through the realisation of identified or new mineralised potential, Glencore's business, results of operations and financial condition may be materially and adversely affected.

The processes and chemicals used in Glencore's extraction and production methods, as well as its shipping and storage activities, are subject to environmental hazards.

Where Glencore holds or has interests in industrial activities, these assets are generally subject to environmental hazards as a result of the processes and chemicals used in traditional extraction, production, storage, disposal and transportation methods. Environmental hazards may exist on Glencore's owned or leased properties or at those of the industrial activities in which it holds an interest, or may be encountered while its products are in transit. In addition, the storage of tailings at Glencore's industrial assets may present a risk to the environment, property and persons. There remains a risk of leakage from or failure of Glencore's tailings dams, as well as theft and vandalism during the operating life of the assets or after closure.

Additionally, Glencore conducts oil exploration and drilling activities and also stores and transports crude oil and oil products around the world. Damage to exploration or drilling equipment, a vessel carrying oil or to a facility where it is stored could lead to a spill, causing environmental damage with significant clean-up or remediation costs.

Glencore may be liable for losses associated with environmental hazards, have its licences and permits withdrawn or suspended or may be forced to undertake extensive remedial clean-up action or to pay for government-ordered remedial clean-up actions, even in cases where such hazards have been caused by any previous or subsequent owners or operators of the property, by any past or present owners of adjacent properties, by independent third party contractors providing services to Glencore or by acts of vandalism by trespassers. Any such losses, withdrawals, suspensions, actions or payments may have a material adverse effect on Glencore's business, results of operations and financial condition.

Other risks relating to Glencore

Due to the nature of its business and operations, Glencore is exposed to the risks of fraud and corruption.

As a diversified sourcing, marketing and distribution company conducting complex transactions globally, Glencore is exposed to the risks of fraud and corruption both internally and externally.

Glencore's marketing operations are large in scale, which may make fraudulent or accidental transactions difficult to detect. In addition, some of Glencore's industrial activities are located in countries where corruption is generally understood to exist.

Glencore seeks to comply fully with legislation such as the Foreign Corrupt Practices Act and the soon to be enacted Bribery Act and has put in place internal control policies and external diligence and compliance policies. However, there can be no assurance that such procedures and established internal controls will adequately protect it against fraudulent and/or corrupt activity and such activity could have an adverse effect on Glencore's business, reputation, results of operations, financial condition and/or prospects.

Accidents at Glencore's industrial activities, logistics and storage facilities could result in injuries and fatalities.

Any accidents or hazardous incidents causing personal injury or death or property or environmental damage at or to Glencore's mines, smelters, refineries, concentrators, drill rigs or related facilities (such as logistics and storage facilities) or surrounding areas may result in significant losses, interruptions in production, expensive litigation, imposition of penalties and sanctions or suspension or revocation of permits and licences. Risks associated with Glencore's open pit mining operations include flooding of the open pits, collapses of the open pit walls and accidents or failures in operation of large equipment for open pit mining and material transportation. Risks associated with Glencore's underground mining operations include flooding, underground fires and explosions (including those caused by flammable gas), cave-ins or ground falls, discharges of gases or toxic chemicals, sinkhole formation and ground subsidence. Risks associated with Glencore's oil exploration and deepwater drilling activities include explosions, spills and potential large-scale environmental pollution. Risks associated with the group logistics and storage operations may include the risk of ruptures and spills from crude oil and other product carriers; spillage, leakage or seepage of tailings or other hazardous substances found in storage or disposal facilities; and failure of tailings dams during the operating life of the mines or after closure. Injuries to and deaths of workers and contractors at mines and facilities controlled by Glencore have occurred in the past and may occur in the future. If accidents occur in the future, Glencore's business and results of operations may be adversely impacted.

Glencore is subject to risks relating to the processing, storage and transportation of its commodities.

Glencore relies on a network of processing, transportation and storage facilities that are subject to numerous risks and hazards. If any of these risks materialise Glencore's business, results of operations and financial condition could be materially adversely affected.

Glencore's processing and storage facilities, which include ore processing plants, smelters, refineries, grain silos, tank farms and oil terminals, are subject to risks and hazards, including accidental environmental damage, technical failure, vandalism and terrorism. In addition, Glencore also depends upon seaborne freight, rail, trucking, pipeline, overland conveyor and other systems to deliver its commodities to market. Disruption of these transport services due to weather-related problems, key equipment or infrastructure failures, strikes, maritime disaster or other events could temporarily impair Glencore's ability to supply its commodities to its customers and thus could adversely affect Glencore's operations.

Metal processing plants (ore processing plants, smelters and refineries) are especially vulnerable to interruptions, particularly where events cause a stoppage that 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 Glencore's smelting operations.

Transportation and storage of crude oil and oil products involves significant hazards that could result in fires, explosions, spills, maritime disaster and other unexpected or dangerous conditions. The occurrence of any of these events could result in a material adverse effect, either directly or indirectly, through resulting damages, claims and awards, remediation costs or negative publicity on Glencore's business.

Crop storage entails significant risks associated with the storage environment, including temperature, humidity levels, pests, parasites and/or diseases. Excessively high or low levels of moisture, temperature or humidity may result in damage to stored crops and seeds. An event that destroys or takes all or part of a silo complex or terminal out of service could result in the loss of stored crops and require Glencore to find alternative storage arrangements. Glencore may also be subject to the loss of stored crops as a result of catastrophic events, such as fires, explosions or natural disasters.

In addition, the vessels Glencore uses to transport its products may be exposed to a variety of natural calamities during operations, including violent storms, tidal waves, rogue waves and tsunamis. Any of these natural calamities could result in Glencore's vessels grounding, sinking, colliding with other vessels or property, or the loss of life. If one of the vessels suffers damage, in addition to the potential loss of its cargo, it would need to be repaired, and the costs relating to such losses or repairs may not be covered (either in part or in full) by the insurance policies that are in place. The costs of such repairs are unpredictable and could be substantial. In addition, vessels will require general repair and maintenance from time to time. The loss of earnings while the vessels are being repaired and repositioned, the cost of arranging for alternative transport, as well as the actual cost of such repairs, could adversely affect Glencore's business and results of operations. Furthermore, the vessels Glencore uses to transport its products may be exposed to piracy, terrorist attacks and other events beyond its control. These events could result in adverse effects to Glencore's business as a result of seizure of its cargoes and disruption to its customers' or suppliers' business. While Glencore has procured insurance for its operations against these types of risks, no insurance can compensate for all potential losses and there can be no assurance that the insurance coverage Glencore has will be adequate or that its insurers will pay a particular claim. As is the standard for policies of this type, Glencore's insurance policies do not cover risks arising from damage caused by wear and tear to the vessels that it owns directly or through joint ventures. In the event of damage to, or the loss of, a vessel or vessels and/or their cargoes, lack of adequate insurance coverage may have a material adverse effect on Glencore's business and results of operations.

Glencore is subject to risks relating to product safety and dangerous goods regulations.

Products sold by Glencore are in many cases covered by national and international product safety and dangerous goods regulations. In some instances, product safety regulations (e.g. the EU's Chemical Control Act, REACH) oblige manufacturers and importers to register their products and to regularly monitor and evaluate the risks and hazards of substances (chemicals, metals, etc.) to protect humans and the environment from harm during handling, storage and use. Any failure in complying with these obligations could result in a delay of Glencore's product delivery, a loss of insurance coverage, business interruption on the customer side, administrative or criminal sanctions and, in the extreme, banning (temporarily) from a marketplace. Such events could have a material impact on the local or global demand, reducing Glencore's marketing opportunities for such a product, or at least increase the handling costs while shipping and placing the product in the market, all of which could have a material adverse effect on Glencore's business, results of operations and financial condition.

Glencore is dependent on its financial, accounting, marketing and other data processing information systems to conduct its business.

Glencore's software applications for areas such as traffic, accounting and finance are primarily based on integrated standard components. Glencore's key business processes rely on in-house developed modules and are regularly adapted to suit its business needs. All of these applications are primarily managed from Glencore's headquarters in Baar and are available to all the major business locations. If any of these systems does not operate properly or is disabled, Glencore could suffer, among other things, financial loss, a disruption of its business, liability to its counterparties, regulatory intervention or reputational damage.

In addition, Glencore's operations are dependent on information systems and technology. The cost of maintaining Glencore's information systems may increase from its current level. Glencore relies on its headquarters in Baar, Switzerland, as well as its offices in London, Rotterdam and Stamford, Connecticut for the continued operation of its business. Glencore has taken precautions through disaster recovery sites to limit the impact that a disruption to these key offices could cause. Although precautions have been taken and plans are in place, a disaster or a disruption in the infrastructure at a main site and its disaster recovery site that supports Glencore's business, including a disruption involving electronic communications or other services used by it or third parties with whom it conducts business, or directly affecting its headquarters or other key offices, could have a material adverse impact on its ability to continue to operate its business without interruption. In addition, insurance and other safeguards might only partially reimburse Glencore for its losses, if at all.

Although Glencore performs and backs up all key functions of its business internally, it relies on third party products and services providers widely used in the industry for certain aspects of its business, including for certain information systems and technology. Severe interruptions or deteriorations in the performance of these third parties or failures of their information systems and technology could impair Glencore's operations.

Glencore is subject to a significant number of laws and regulations.

Glencore's activities are subject to extensive laws and regulations governing various matters. These include laws and regulations relating to taxation, anti-trust, environmental protection, management and use of hazardous substances and explosives, management of natural resources, licences over resources owned by various governments, exploration, development of projects, production and post-closure reclamation, the employment of expatriates, labour and occupational health and safety standards, and historic and cultural preservation. Additionally, in many of the developing countries where Glencore operates, the legal systems may not be mature and legal practice may not be developed, such that, in certain cases, there may be significant uncertainty as to the correct legal position as well as the possibility of laws changing or new laws and regulations being enacted, which has the potential to increase risk and compliance costs.

These laws and regulations may allow governmental authorities and private parties to bring lawsuits based upon damages to property and injury to persons resulting from the environmental, health and safety and other impacts of Glencore's past and current operations, and could lead to the imposition of substantial fines, penalties, other civil or criminal sanctions, the curtailment or cessation of operations, orders to pay compensation, orders to remedy the effects of violations and/or orders to take preventative steps against possible future violations. Moreover, the costs associated with compliance with these laws and regulations are substantial. More stringent enforcement or restrictive interpretation of current laws and regulations by governmental authorities or rulings or clearances obtained from such governmental authorities could cause additional expenditure (including capital expenditure) to be incurred or impose restrictions on or suspensions of Glencore's operations and delays in the development of its properties.

Glencore's subsidiaries and the companies in which Glencore holds investments are generally required, under applicable laws and regulations, to seek governmental licences, permits, authorisations, concessions and other approvals in connection with their activities. Obtaining the necessary governmental permits can be a particularly complex and time-consuming process and may involve costly undertakings. The duration and success of permit applications are contingent on many factors, including those outside Glencore's control. Failure to obtain or renew a necessary permit could mean that such companies would be unable to proceed with the development or continued operation of a mine or project, which, in turn, may have a material adverse effect on Glencore's business, results of operations, financial condition and prospects.

In addition, the enactment of new laws and regulations and changes to existing laws and regulations (including, but not restricted to, environmental laws, the imposition of higher licence fees, mining and hydrocarbon royalties or taxes), compliance with which could be expensive or onerous, could also have a material adverse impact on Glencore's ability to operate its business and/or the profitability of its industrial investments.

Glencore's smelting and mineral processing operations are generally energy intensive and depend heavily on fossil fuels. In addition, the methods of transportation used by Glencore's marketing operations in order to deliver commodities to customers around the world depend heavily on fossil fuels. Increasing regulation of greenhouse gas emissions, including the progressive introduction of carbon emissions trading mechanisms and tighter emission reduction targets in numerous jurisdictions in which Glencore operates is likely to raise energy costs and costs of production in the future. Regulation of greenhouse gas emissions in the jurisdictions of Glencore's major customers and in relation to international shipping could also have a material adverse effect on the demand for Glencore's products.

Social, economic and other risks in the markets where Glencore operates may cause serious disruptions to its business.

Through the geographic diversity of its operations, Glencore is exposed to risks of political unrest, strikes, war and economic and other forms of instability, such as natural disasters, epidemics, widespread transmission or communicable or infectious diseases, acts of God, terrorist attacks and other events beyond its control that may adversely affect local economies, infrastructure and livelihoods.

These events could result in disruption to Glencore's, its customers' or suppliers' businesses and seizure of, or damage to, any of their cargoes or assets. Such events could also cause the destruction of key equipment and infrastructure (including infrastructure located at or serving Glencore's industrial activities as well as the infrastructure that supports the freight and logistics required by Glencore's marketing operations). These events could also result in the partial or complete closure of particular ports or significant sea passages, such as the Suez or Panama canals or the Straits of Hormuz, potentially resulting in higher costs, congestions of ports or sea passages, vessel delays or cancellations on some trade routes. Any of these events could adversely impact Glencore's business and results of operations.

Glencore's reputation in the communities in which it operates could deteriorate.

If it is perceived that Glencore is not respecting or advancing the economic and social progress and safety of the communities in which it operates, Glencore's reputation and shareholder value could be damaged, which could have a negative impact on its "licences to operate", its ability to secure new resources and its financial performance.

Some of Glencore's current and potential industrial activities are located in or near communities that may regard such operations as having a detrimental effect on their safety or environmental, economic or social circumstances. The consequences of negative community reaction could also have a material adverse impact on the cost, profitability, ability to finance or even the viability of an operation. Such events could lead to disputes with national or local governments or with local communities or any other stakeholders and give rise to material reputational damage. If Glencore's operations are delayed or shut down as a result of political and community instability, its earnings may be constrained and the long-term value of its business could be adversely impacted. Even in cases where no action adverse to Glencore is actually taken, the uncertainty associated with such political or community instability could negatively impact the perceived value of Glencore's assets and industrial investments and, consequently, have a material adverse effect on Glencore's financial condition.

Glencore may fail to make successful acquisitions or fail to integrate acquisitions effectively.

From time to time, Glencore considers the acquisition of complementary businesses or assets where the opportunity is presented to do so at attractive prices. Business combinations entail a number of risks, including the ability of Glencore to integrate effectively the businesses acquired with their existing operations (including the realisation of synergies, significant one-time write-offs or restructuring charges, difficulties in achieving optimal tax structures and unanticipated costs). All of these may be exacerbated by the diversion of the Directors' attention away from other ongoing business concerns. In addition, although Glencore does not currently have significant shares of the total market for commodities which it markets (as set out in the section titled "Presentation of Information"), further acquisitions to be made by Glencore may be subject to certain approvals (e.g. anti-trust approvals) which may or may not be obtained. Glencore may also be liable for the past acts, omissions or liabilities of companies or businesses it has acquired, which may be unforeseen or greater than anticipated at the time of the relevant acquisition. In addition, various factors could impact Glencore's estimated synergies for potential acquisitions and have a material adverse impact on Glencore's business, results of operations and financial condition.

The industries in which Glencore operates are subject to a wide range of risks as described elsewhere in this section, not all of which can be covered, adequately or at all, by Glencore's insurance programme.

Glencore has a broad insurance programme in place which provides coverage for operations at a level believed by the Directors to be appropriate for the risks associated therewith. Such insurance protection is maintained with leading international insurance providers and includes coverage for physical loss and damage to owned vessels and kidnap and ransom, as well as third party liability, including for pollution. However, although Glencore's insurance is intended to cover the majority of the risks to which Glencore is exposed, it cannot account for every potential risk associated with its operations. Adequate coverage at reasonable rates is not always commercially available to cover all potential risks and no assurance can be given that, where available, such coverage would be sufficient to cover all loss and liability to which Glencore may be exposed. The occurrence of a significant adverse event not fully or partially covered by insurance could have a material adverse effect on Glencore's business, results of operations and financial condition.

The maintenance of positive employee relations and the ability to attract and retain skilled workers is key to the successful operation of Glencore's industrial activities.

Some of Glencore's employees, as well as employees in non-controlled industrial investments, are represented by labour unions under various collective labour agreements. Glencore, its subsidiaries or the industrial investments in which it holds an interest may not be able to satisfactorily renegotiate its collective labour agreements when they expire and may face tougher negotiations or higher wage demands than would be the case for non-unionised labour. In addition, existing labour agreements may not prevent a strike or work stoppage at its facilities in the future, and any strike or other work stoppage could have a material adverse effect on Glencore's business, results of operations and financial condition. Glencore's industrial activities have experienced strikes and other labour disputes in the past. Prodeco, in particular,

experienced a 38-day strike by employees at one of La Jagua's concessions in 2010 and the Directors believe that strikes and other industrial actions will remain a risk to the business for the foreseeable future.

The success of Glencore's business is also dependent on its ability to attract and retain highly qualified and skilled engineers and other industrial, technical and project experts to operate its industrial activities in locations experiencing political or civil unrest, or in which they may be exposed to other hazardous conditions. Glencore may not be able to attract and retain such qualified personnel and this could have a material adverse effect on Glencore's business, results of operations and financial condition.

Risks relating to an investment in the Ordinary Shares

The price of the Ordinary Shares is subject to volatility.

The share prices of publicly traded companies can be highly volatile. 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), including, in particular, in response to various facts and events, including any regulatory changes affecting Glencore's operations, variations in Glencore's operating results and/or business developments of Glencore and/or its competitors, the operating and share price performance of other companies in the industries and markets in which Glencore operates, large sales or purchases of shares, the publication of research analysts' reports regarding Glencore, its competitors or the sectors in which Glencore operates generally and general economic conditions unrelated to Glencore's actual performance or conditions in its key markets. Stock markets have in the past, and particularly in recent times, experienced significant price and volume fluctuations which have affected market prices of publicly traded companies' securities. Prior to the Global Offer, there has been no public market for the Ordinary Shares. A listing on the London Stock Exchange and the Hong Kong Stock Exchange does not guarantee, and Glencore can give no assurance, notwithstanding Admission, that active trading markets in the Ordinary Shares will develop or, if developed, that it will be sustained, stable or regarding the liquidity of that market. Furthermore, Glencore'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. In addition, there is also no guarantee that the Ordinary Shares will remain listed on the London Stock Exchange and the Hong Kong Stock Exchange, and failure to maintain the Company's listings on these exchanges could adversely affect the liquidity of the market for the Ordinary Shares.

Future share issues by the Company and/or sales by Shareholders could lower the market price of the Ordinary Shares and adversely affect Glencore's ability to raise capital in the future. Further share issues could also dilute the interests of Shareholders.

The issue of additional shares by the Company or the sale or transfer of Ordinary Shares or the possibility of such issue or sale may cause the market price of the Ordinary Shares to fluctuate or decline or be lower than might otherwise be the case or result in the dilution of the interests of Shareholders. In particular, following Admission, it is expected that Existing Shareholders will control, in aggregate, approximately 83.6 per cent. of the Ordinary Shares (assuming no acquisition of Over-Allotment Shares pursuant to the Over-Allotment Option) and, notwithstanding the lock-up arrangements that Glencore has put in place with its Existing Shareholders, the possibility of significant sales by those Existing Shareholders may cause the market price of the Ordinary Shares to fluctuate or decline. In particular, there can be no assurance that there will be no significant disposals of Ordinary Shares following the expiry of the lock-up arrangements. Future share sales, or perceived future share sales, of substantial numbers of Ordinary Shares could materially and adversely affect Glencore's ability to raise capital in the future at a time and price favourable to Glencore.

Investors in the Global Offer may suffer a dilution in their interest upon any conversions by the holders of the Convertible Bonds.

Glencore Finance (Europe) S.A., one of Glencore's financing vehicles, has issued U.S.$2.3 billion guaranteed convertible bonds due 2014 (the "Convertible Bonds"). Following Admission, investors in the Convertible Bonds will be eligible to convert their bonds into Ordinary Shares of Glencore, which would in total represent 5.5 per cent. of the total issued share capital of the Company following Admission, assuming an Offer Price at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and the Kazzinc Consideration Shares have not been issued. Any such conversions will have the effect of diluting the interest of the investors in the Global Offer.

Exchange rate fluctuations may adversely affect the foreign currency value of the Ordinary Shares and any dividends.

The Ordinary Shares will be quoted in pounds sterling on the London Stock Exchange and in Hong Kong dollars on the Hong Kong Stock Exchange. Dividends in respect of the Ordinary Shares, if any, will be declared in U.S. Dollars. Glencore's financial statements are, however, prepared in U.S. dollars. Fluctuations in the exchange rate between the U.S. dollar and each of the pounds sterling and the Hong Kong dollar will affect, amongst other matters, the pounds sterling and Hong Kong dollar value of the Ordinary Shares and of any dividends.

Shareholders in the U.S. may not be able to participate in future equity offerings.

The Articles provide for pre-emptive rights to be granted to Shareholders unless such rights are disapplied by a shareholder resolution. Shareholders in the U.S. may, however, not be entitled to exercise these rights unless the rights or Ordinary Shares are registered under the Securities Act or the Company has available to it, and utilises, an exemption from the registration requirements of the Securities Act.

There can be no assurance that the Company will file any such registration statement, or that an exemption from the registration requirements of the Securities Act will be available, which could result in Shareholders in the U.S. being unable to exercise their pre-emptive rights. The Company would expect to evaluate at the time of any rights or similar offering the costs and potential liabilities associated with any such registration statement or qualifying for an exemption from registration, as well as the indirect benefits of enabling Shareholders in the U.S. to exercise any pre-emptive rights for Ordinary Shares and any other factors considered appropriate at the time, prior to making a decision whether to file a registration statement with the U.S. Securities and Exchange Commission or utilise an exemption from the registration requirements of the Securities Act.

The Company and certain of its operating subsidiaries and associates may be subject to restrictions on their ability to pay dividends.

Glencore's results of operations and financial condition are entirely dependent on the financial performance of members and associates of the Glencore Group other than the Company. The Company's ability to pay dividends will depend, among other things, on the level of distributions, if any, received from the Company's operating subsidiaries and interests, and its level of cash balances. Certain of the Company's operating subsidiaries may, from time to time, be subject to restrictions on their ability to make distributions to the Company or return cash to it by other means, and there can be no assurance that such restrictions will not have a material adverse effect on the market price of the Ordinary Shares.

The rights afforded to Shareholders are governed by Jersey law. Not all rights available to shareholders under English law, Hong Kong law or U.S. law will be available to Shareholders.

The rights afforded to Shareholders will be governed by Jersey law and by the Articles, and these rights differ in certain respects from the rights of shareholders in typical English and Hong Kong companies and U.S. corporations. In particular, Jersey law significantly limits the circumstances under which shareholders of companies may bring derivative actions and, in most cases, only the corporation may be the proper claimant or plaintiff for the purposes of maintaining proceedings in respect of any wrongful act committed against it. Neither an individual nor any group of shareholders has any right of action in such circumstances. In addition, Jersey law does not afford appraisal rights to dissenting shareholders in the form typically available to shareholders of a U.S. corporation.

Foreign investors may find it difficult to enforce foreign judgments obtained against Glencore or any of its Affiliates.

The Company is a holding company organised as a public limited company incorporated in Jersey with business operations conducted through various subsidiaries. The majority of the Directors and all of its officers reside outside the U.S. In addition, substantially all of the Company's assets and the majority of the assets of its Directors and officers are located outside the U.S. As a result, it may not be possible for U.S. investors to effect service of process within the U.S. upon the Company or its Directors and officers located outside the U.S. or to enforce, in the U.S. courts or outside the U.S., judgments obtained against them in U.S. courts or in courts outside the U.S., including judgments predicated upon the civil liability provisions of the U.S. federal securities laws or the securities laws of any state or territory within the U.S.

There is also doubt as to the enforceability in England and Wales, Jersey, Switzerland and/or Hong Kong, whether by original actions or by seeking to enforce judgments of U.S. courts, of claims based on the

federal securities laws of the U.S. In addition, punitive damages in actions brought in the U.S. or elsewhere may be unenforceable in England and Wales, Jersey, Switzerland and/or Hong Kong.

Risks related to the dual listing

The London Stock Exchange and the Hong Kong Stock Exchange have different characteristics.

Following the Global Offer, the International Offer Shares and the Hong Kong Offer Shares will be fungible and able to be traded on the London Stock Exchange or the Hong Kong Stock Exchange. Shareholders resident in Hong Kong will be able to hold their Ordinary Shares on a branch register of the Company maintained in Hong Kong. As there is no direct trading or settlement between the stock markets of London and Hong Kong, the time required to move Ordinary Shares held on the branch register of the Company maintained in Hong Kong to the principal share register of the Company maintained in Jersey (and vice versa) may vary and there is no certainty of when Ordinary Shares that are moved will be available for trading or settlement.

In addition, the London Stock Exchange and the Hong Kong Stock Exchange have different trading hours, trading characteristics (including trading volume and liquidity), trading and listing rules and investor bases (including different levels of retail and institutional participation). As a result of these differences, the trading price of the Ordinary Shares on the London Stock Exchange and the Hong Kong Stock Exchange may not be the same at any given time.

Furthermore, fluctuations in the Ordinary Share price on the London Stock Exchange could materially and adversely affect the Ordinary Share price on the Hong Kong Stock Exchange (and vice versa). Moreover, fluctuations in the exchange rate between United Kingdom pounds sterling and Hong Kong dollars could materially and adversely affect the prices of the Ordinary Shares listed on the London Stock Exchange and the Hong Kong Stock Exchange.

In addition and in accordance with the terms of the Underwriting Agreement, in the event that the Company, the Selling Shareholder and the Joint Global Co-ordinators (on behalf of the Banks) decide following the date of this Prospectus not to proceed with the Hong Kong Offer, the parties reserve the right to proceed with the International Offer and the Hong Kong Offer Shares will be made available in the International Offer on the basis of the information contained in this Prospectus. In such circumstances, HK Admission would not occur and there would be no listing of the Ordinary Shares on the Hong Kong Stock Exchange.

As a company due to be listed on the London Stock Exchange and the Hong Kong Stock Exchange, the Company will be subject to both United Kingdom and Hong Kong laws, regulations and policies.

Hong Kong laws, regulations and policies may differ in some respects from comparable laws, regulations and policies in the United Kingdom. The differences in compliance requirements may subject the Company to additional regulatory burdens. In the event of any conflict between the applicable laws, regulations and policies in the United Kingdom and those in Hong Kong, the Company will have to comply with the more onerous rules and may incur additional costs and require additional resources.

Certain Hong Kong laws and regulations will not apply to the Company.

The Company, whose primary listing on Admission will be on the London Stock Exchange, has applied for, and the Hong Kong Stock Exchange and the SFC have granted, a number of waivers and exemptions from Hong Kong laws and regulations.

Shareholders therefore will not obtain the rights and benefits afforded under those Hong Kong laws and regulations for which the Company has been granted waivers and exemptions by the Hong Kong Stock Exchange and the SFC. Additionally, if any of these waivers or exemptions were to be revoked, the Company may be subject to additional legal and compliance obligations, which might be costly and time consuming to comply with, which could adversely affect the Company and Shareholders.

DIRECTORS, SECRETARY, HEAD OFFICE AND ADVISERS

Directors	Simon Murray	*(Independent Chairman)*
	Ivan Glasenberg	*(Chief Executive Officer)*
	Steven Kalmin	*(Chief Financial Officer)*
	Anthony Hayward	*(Senior Non-Executive Director)*
	Peter Coates	*(Non-Executive Director)*
	Leonhard Fischer	*(Non-Executive Director)*
	William Macaulay	*(Non-Executive Director)*
	Li Ning	*(Non-Executive Director)*
Company Secretary	Prism CoSec Limited 271 Regent Street London W1B 2ES	
Assistant Company Secretary	Soon Yuk Tai Tricor Services Limited Level 28, Three Pacific Place 1 Queens Road East Hong Kong	
Registered Office	Queensway House Hilgrove Street St Helier Jersey JE1 1ES	
Headquarters	Baarermattstrasse 3 P.O. Box 777 CH-6341 Baar Switzerland	
UK Sponsors	Citigroup Global Markets Limited Citigroup Centre Canada Square London E14 5LB United Kingdom	
	Morgan Stanley & Co. International plc 25 Cabot Square London E14 4QA United Kingdom	
HK Sponsors	Citigroup Global Markets Asia Limited 50th Floor, Citibank Tower Citibank Plaza, 3 Garden Road Central Hong Kong	
	Morgan Stanley Asia Limited 46th Floor, International Commerce Centre I Austin Road West Kowloon Hong Kong	

Joint Global Co-ordinators	Citigroup Global Markets U.K. Equity Limited Citigroup Centre Canada Square London E14 5LB United Kingdom Morgan Stanley & Co. International plc 25 Cabot Square London E14 5LB United Kingdom Credit Suisse Securities (Europe) Limited One Cabot Square London E14 4QJ United Kingdom
Joint Bookrunners	Citigroup Global Markets U.K. Equity Limited Citigroup Centre Canada Square London E14 5LB United Kingdom Credit Suisse Securities (Europe) Limited One Cabot Square London E14 4QJ United Kingdom Morgan Stanley Securities Limited 25 Cabot Square London E14 5LB United Kingdom Citigroup Global Markets Asia Limited 50th Floor, Citibank Tower Citibank Plaza, 3 Garden Road Central Hong Kong Credit Suisse (Hong Kong) Limited 45/F, Two Exchange Square 8 Connaught Place Central Hong Kong Morgan Stanley Asia Limited 46th Floor, International Commerce Centre 1 Austin Road West Kowloon Hong Kong
Legal Adviser to the Company as to English, Hong Kong and U.S. law	Linklaters LLP One Silk Street London EC2Y 8HQ United Kingdom Linklaters 10th Floor Alexandra House Chater Road Hong Kong

Legal Adviser to the Company as to Jersey law	Mourant Ozannes 22 Grenville Street St Helier Jersey JE4 8PX
Legal Adviser to the Underwriters as to English, Hong Kong and U.S. law	Clifford Chance LLP 10 Upper Bank Street London E14 5JJ United Kingdom Clifford Chance 28th Floor Jardine House One Connaught Place Hong Kong
Legal Adviser to the Underwriters as to Jersey law	Ogier 11th Floor, Central Tower Queen's Road Central Hong Kong
Reporting Accountants	Deloitte LLP 2 New Street Square London EC4A 3BZ United Kingdom
Auditors	Deloitte AG General Guisan-Quai 38 P.O. Box 2232 CH-8022 Zurich Switzerland
Mineral Expert in respect of Kazzinc	Wardell Armstrong International Wheal Jane Baldhu Truro Cornwall TR3 6EH United Kingdom
Mineral Expert in respect of Prodeco	Minarco-MineConsult Pty Ltd. Level 16, Australia Square 264-278 George Street Sydney NSW 2000 Australia McElroy Bryan Geological Services Pty Ltd. Level 1, 680 Willoughby Road Willoughby Sydney New South Wales Australia
Mineral Expert in respect of Mopani, Katanga and Mutanda	Golder Associates South Africa (Pty) Limited Thandanani Park Matuka Close Midrand South Africa

Registrars	Computershare Investor Services (Jersey) Limited Queensway House Hilgrove Street St Helier Jersey JE1 1ES Computershare Hong Kong Investor Services Limited Shops 1712-1716, 17th Floor Hopewell Centre 183 Queen's Road East Wan Chai Hong Kong

GLOBAL OFFER STATISTICS

Offer Price Range (per Ordinary Share)[1]	480 to 580 pence
Maximum number of Ordinary Shares available under the Global Offer	1,250,000,000
Number of Ordinary Shares expected to be issued and sold in the Global Offer[2][3]	1,132,075,472
—New Offer Shares	893,292,886
—Sale Shares	238,782,586
Percentage of the issued Ordinary Share capital expected to be issued and sold in the Global Offer[2]	16.4%
Number of Ordinary Shares subject to the Over-Allotment Option[4]	113,207,547
Number of Ordinary Shares expected to be in issue following the Global Offer[2][5][6]	6,893,292,886
Expected market capitalisation of the Company at the Offer Price[2][6]	U.S.$60.9 billion
Estimated net proceeds of the Global Offer receivable by the Company[7]	U.S.$7,456 million

Notes:

(1) The Offer Price may be set within, above or below the Offer Price Range. To the fullest extent permitted by law, applications received under the International Offer are irrevocable and are based on the amount the applicant wishes to invest and not the number of Ordinary Shares or the Offer Price. It is expected that the Pricing Statement containing the Offer Price and the number of Ordinary Shares which are the subject of the Global Offer will be published on or about 19 May 2011. Further details of the Global Offer are contained in Section VIII: "Details of the Global Offer".

(2) Assumes an Offer Price at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and there is no conversion of the Convertible Bonds.

(3) The Company will determine the aggregate number of Offer Shares, the number of New Offer Shares and the number of Sale Shares in light of the determination of the Offer Price on the Price Determination Date. In the Global Offer, the Company and the Selling Shareholder together intend to raise aggregate gross proceeds equivalent to approximately U.S.$10 billion at exchange rates prevailing at the Price Determination Date. The number of Sale Shares will be determined by the Company and the Selling Shareholder by reference to the Offer Price, exchange rates prevailing at the Price Determination Date, and the aggregate amount of the expected tax liabilities and loan repayments of Existing Shareholders. The number of New Offer Shares will (subject to the Company's right to increase or decrease the number of Ordinary Shares issued and/or sold under the Global Offer, as set out in Section VIII: "Details of the Global Offer") be determined so as to provide the balance of the intended aggregate gross proceeds of the Global Offer. The Company and the Selling Shareholder also reserve the right to increase or decrease the intended aggregate gross proceeds amount, subject to no more than 1,250,000,000 Ordinary Shares being issued and/or sold in the Global Offer. The aggregate number of Offer Shares, the number of Sale Shares and the number of New Offer Shares will each be set out in the Pricing Statement.

(4) Assumes an Offer Price at the mid-point of the Offer Price Range.

(5) Following Admission, investors in the Convertible Bonds will be eligible to convert their bonds into Ordinary Shares, which would in total represent 5.5 per cent. of the total issued share capital of the Company following Admission and following conversion, assuming an Offer Price at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and the Kazzinc Consideration Shares have not been issued.

(6) Assumes that the Kazzinc Consideration Shares have not been issued.

(7) The estimated net proceeds receivable by the Company are stated after deduction of the estimated underwriting commissions and estimated expenses of the Global Offer (including Swiss federal issuance stamp tax payable in connection with the Restructuring and the Global Offer and VAT) payable by the Company, which are currently expected to be approximately U.S.$434.6 million, and assumes the Over-Allotment Option is not exercised. The Company will not receive any portion of the proceeds resulting from the sale of the Sale Shares by the Selling Shareholder in the Global Offer (other than where proceeds are paid to Glencore in respect of tax liabilities settled by the Company on behalf of certain Existing Shareholders where the Glencore Group has a withholding tax or other legal obligation to do so and in certain cases to repay a small tranche of outstanding loans extended by companies within the Glencore Group).

EXPECTED TIMETABLE OF PRINCIPAL EVENTS IN THE UK

Announcement of Offer Price Range	4 May 2011
Price Range Prospectus published	4 May 2011
Announcement of results of the Global Offer and notification of allocations[1]	7.00 a.m. on 19 May 2011
Publication of the Pricing Statement containing the Offer Price[1][2]	19 May 2011
Commencement of conditional dealings in Ordinary Shares on the London Stock Exchange	8.00 a.m. on 19 May 2011
UK Admission and commencement of unconditional dealings in Ordinary Shares on the London Stock Exchange	8.00 a.m. on 24 May 2011
Crediting of Ordinary Shares to CREST accounts	8.00 a.m. on 24 May 2011
Despatch of definitive share certificates (where applicable)	Week commencing 6 June 2011

Each of the times and dates in the above timetable is subject to change without further notice. References to times are to London time unless otherwise stated.

It should be noted that, if UK Admission does not occur for any reason (including the Restructuring not being implemented in all material respects as described in paragraph 3 of Section X: "Additional Information"), all conditional dealings will be of no effect and any such dealings will be at the sole risk of the parties concerned. Temporary documents of title will not be issued.

Notes:

(1) The announcement of results of the Global Offer and notification of allocations and publication of the Pricing Statement containing the Offer Price as set out in the expected timetable of principal events in the UK above and mentioned throughout this document may be adjusted in event of a "black" rainstorm warning or a tropical cyclone warning signal number 8 or above in force in Hong Kong at any time between 9.00 a.m. and 12.00 noon (Hong Kong time) on 18 May 2011, in which case details of the new dates and times will be announced publicly.

(2) The Pricing Statement will not automatically be sent to persons who receive this document but it will be available free of charge at the registered office of the Company (Queensway House, Hilgrove Street, St. Helier, Jersey JE1 1ES). In addition, the Pricing Statement will, subject to certain restrictions, be published in electronic form and be available on the Company's website at www.glencore.com.

Opening of the Hong Kong Offer to retail investors in Hong Kong	9.00 a.m. on 13 May 2011
Latest time to complete electronic applications under White Form eIPO Service through the designated website www.eipo.com.hk	11.30 a.m. on 18 May 2011
Application list open[1]	11.45 a.m. on 18 May 2011
Latest time for lodging Application Forms and giving electronic application instructions to HKSCC	12 noon on 18 May 2011
Latest time to complete payment of the White Form eIPO applications by effecting internet banking transfer(s) or PPS payment transfer	12 noon on 18 May 2011
Application lists close	12 noon on 18 May 2011
Expected Price Determination Date	19 May 2011[2]
Announcement of the Offer Price	19 May 2011
Announcement of an indication of the level of interest in the International Offer, the level of applications in the Hong Kong Offer and the basis of allotment under the Hong Kong Offer to be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) and on the websites of the Hong Kong Stock Exchange at www.hkexnews.hk[3] and the Company at www.glencore.com on or before	24 May 2011
Results of allocations under the Hong Kong Offer (with successful applicants' identification document numbers or Hong Kong business registration numbers, where appropriate) to be available through a variety of channels and at www.iporesults.com.hk with a "search by ID" function from	24 May 2011
Despatch of share certificates or deposit of share certificates in CCASS in respect of wholly or partially successful applications in the Hong Kong Offer on or before[4]	24 May 2011
Despatch of refund cheques or white form e-Refund payment instructions/refund cheques in respect of wholly or partially unsuccessful applications in the Hong Kong Offer on or before	24 May 2011
Commencement of unconditional dealings in Ordinary Shares on the Hong Kong Stock Exchange expected from	9.00 a.m. on 25 May 2011

Each of the times and dates in the above timetable is subject to change without further notice. The Company will issue an announcement in Hong Kong to be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) if there is any change in the expected timetable of the Hong Kong Offer. References to times and dates are to Hong Kong time and dates unless otherwise stated.

Notes:

(1) If there is a "black" rainstorm warning or a tropical cyclone warning signal number 8 or above in force in Hong Kong at any time between 9.00 a.m. and 12.00 noon on 18 May 2011, the application lists will not open and close on that day.

(2) Please note that the price will be determined at the close of business in London on 18 May 2011.

(3) The announcement will be available for viewing on the "Main Board—Results of Allotment" page on the Hong Kong Stock Exchange's website.

(4) Notwithstanding the despatch of share certificates, share certificates will become valid only if the Global Offer has become unconditional in all respects (including the Underwriting Agreement not having been terminated in accordance with their terms). Investors who trade Ordinary Shares on the basis of publicly available allocation details or prior to the receipt of the share certificates do so entirely at their own risk.

PRESENTATION OF INFORMATION

General

Investors should rely only on the information in this Prospectus. No person has been authorised to give any information or to make any representations other than those contained in this Prospectus in connection with the Global Offer and, if given or made, such information or representations must not be relied upon as having been authorised by or on behalf of the Company, the Directors, the Selling Shareholder, the Existing Shareholders or the Banks. No representation or warranty, express or implied, is made by any Bank or any selling agent as to the accuracy or completeness of such information, and nothing contained in this Prospectus is, or should be relied upon as, a promise or representation by the Banks or any selling agent as to the past, present or future. In particular, the content of the Company's website (www.glencore.com) does not form part of this Prospectus and prospective investors should not rely on it. Further, Glencore does not accept any responsibility for the accuracy or completeness of any information reported by the press or other media, nor the fairness or appropriateness of any forecasts, views or opinions expressed by the press or other media regarding the Global Offer or Glencore. Glencore makes no representation as to the appropriateness, accuracy, completeness or reliability of any such information or publication.

Without prejudice to any obligation of the Company to publish a supplementary prospectus pursuant to section 87G of the FSMA and PR 3.4.1 of the Prospectus Rules, neither the delivery of this Prospectus nor any subscription or sale made under this Prospectus shall, under any circumstances, create any implication that there has been no change in the business or affairs of Glencore taken as a whole since the date hereof or that the information contained herein is correct as of any time subsequent to its date.

The contents of this Prospectus are not to be construed as legal, business or tax advice. Each prospective investor should consult his or her own lawyer, financial adviser or tax adviser for legal, financial or tax advice in relation to any subscription, purchase or proposed subscription or purchase of Ordinary Shares.

In connection with the Global Offer, the Banks and any of their affiliates, acting as investors for their own accounts, may subscribe for and/or purchase Ordinary Shares, and in that capacity may retain, purchase, sell, offer to sell or otherwise deal for their own accounts in such Ordinary Shares and other securities of the Company or related investments in connection with the Global Offer or otherwise. Accordingly, references in this Prospectus to the Ordinary Shares being issued, offered, subscribed, purchased, acquired, placed or otherwise dealt in should be read as including any issue or offer to, or subscription, purchase, acquisition, placing or dealing by, any Bank and any of its affiliates acting as an investor for its own accounts. The Banks do not intend to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligations to do so.

None of the Company, the Directors, the Selling Shareholder, the Existing Shareholders or the Banks is making any representation to any offeree or purchaser of the Ordinary Shares regarding the legality of an investment by such offeree or purchaser.

Apart from the responsibilities and liabilities, if any, which may be imposed on the Banks by the FSMA, Hong Kong or the regulatory regime established thereunder or thereby or any other applicable regulatory regime, the Banks accept no responsibility whatsoever for the contents of this Prospectus or for any other statement made or purported to be made in it, in connection with the Company, the Ordinary Shares or the Global Offer. The Banks accordingly disclaim all and any liability whether arising in tort, contract or otherwise (save as referred to above) which they might otherwise have in respect of this Prospectus or any such statement.

No representation or warranty, express or implied, is made by the Banks named herein as to the accuracy or completeness of information contained in this Prospectus, and nothing in this Prospectus is, or shall be relied upon as, a promise or representation by the Banks.

Prior to making any decision as to whether to subscribe for or purchase the Ordinary Shares, prospective investors should read this Prospectus in its entirety. In making an investment decision, prospective investors must rely upon their own examination of the Company and the terms of this Prospectus, including the risks involved.

The investors also acknowledge that: (i) they have not relied on the Underwriters or any person affiliated with the Underwriters in connection with any investigation of the accuracy of any information contained in this Prospectus or their investment decision; and (ii) they have relied only on the information contained in this document, and that no person has been authorised to give any information or to make any representation concerning the Company or its subsidiaries or the Ordinary Shares (other than as contained

in this document) and, if given or made, any such other information or representation should not be relied upon as having been authorised by the Company, the Selling Shareholder or the Underwriters.

Presentation of financial information and non-financial operating data

Historical financial information

The historical financial information in this Prospectus has been prepared in accordance with the requirements of the Prospectus Directive regulation, the UK Listing Rules, and IFRS issued by the International Accounting Standards Board ("IASB") and as adopted for use in the EU. The basis of preparation is further explained in Part VI: "Historical Financial Information". The historical financial information presented in this Prospectus consists of audited consolidated financial information for the years ended 31 December 2008, 31 December 2009 and 31 December 2010. The consolidated historical financial information contained in Section VI: "Historical Financial Information" has been prepared on a basis that consolidates the assets and liabilities of the companies comprising the Glencore Group. Internal transactions within the Glencore Group have been eliminated on consolidation.

The historical financial information included in Section VI: "Historical Financial Information" was audited in accordance with the Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. Neither this information nor the other financial information used in this Prospectus was prepared in accordance with accounting principles generally accepted in the U.S. ("U.S. GAAP"), audited in accordance with the auditing standards generally accepted in the U.S. ("U.S. GAAS"), or the auditing standards of the U.S. Public Company Accounting Oversight Board (the "PCAOB Standards"). No opinion or any other assurance with regard to any financial information was expressed under U.S. GAAP, U.S. GAAS or PCAOB Standards, and the historical financial information included in Section VI: "Historical Financial Information" and other financial information is not intended to comply with SEC reporting requirements. Compliance with such requirements would require the modification, reformulation or exclusion of certain financial measures. In addition, changes would be required in the presentation of certain other information. Potential investors should consult their own professional advisers to gain an understanding of the financial information in Section VI: "Historical Financial Information" and the implications of differences between the auditing standards noted herein.

Pro forma financial information

This Prospectus includes an unaudited pro forma net assets statement as at 31 December 2010 for the Company illustrating the effect of Admission had it occurred on 31 December 2010. Because of its nature, the pro forma financial information addresses a hypothetical situation and, therefore, does not represent the Company's actual financial position. The Prospectus Rules regarding the preparation and presentation of pro forma financial information vary in certain respects from Article 11 of Regulation S-X promulgated under the Securities Act and, accordingly, the unaudited pro forma financial information included herein should not be relied upon as if it has been prepared in accordance with such requirements.

Shareholders and potential investors should refer to the basis of preparation of the unaudited pro forma financial information set forth in Section VII: "Unaudited Pro Forma Financial Information".

Non-financial operating data

The non-financial operating data included in this Prospectus has been extracted without material adjustment from the management records of Glencore International and are unaudited.

Non-IFRS Measures

In this Prospectus, certain financial measures are presented that are not recognised by IFRS, including Adjusted EBIT, Adjusted EBIT pre-exceptional items, Adjusted EBITDA, Adjusted EBITDA pre-exceptional items and net debt (the "Non-IFRS Measures").

Adjusted EBIT

Adjusted EBIT consists of revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the consolidated statements of income. Although Adjusted EBIT is not typically a measure of operating income, operating performance or liquidity under IFRS, the Directors have presented Adjusted EBIT in this Prospectus because they believe Adjusted EBIT is used by some investors to determine a company's

ability to service indebtedness and fund ongoing capital expenditure and dividends. Adjusted EBIT should not, however, be considered in isolation or as a substitute for income from operations as determined in accordance with IFRS, or for cash flows from operating activities as determined in accordance with IFRS, or as an indicator of operating performance.

Adjusted EBITDA

Adjusted EBITDA consists of Adjusted EBIT (as defined above) plus depreciation and amortisation. Although Adjusted EBITDA is not typically a measure of operating income, operating performance or liquidity under IFRS, the Directors have presented Adjusted EBITDA in this Prospectus as they believe that Adjusted EBITDA is used by some investors to determine a company's ability to service indebtedness and fund ongoing capital expenditure and dividends.

Adjusted EBITDA has limitations as an analytical tool, and an investor should not consider these measures in isolation from, or as a substitute for, analysis of Glencore International's results of operations. Some of the limitations of Adjusted EBITDA are that:

- it does not reflect Glencore International's cash expenditures or future requirements for capital expenditure or contractual commitments;
- it does not reflect changes in, or cash requirements for, Glencore International or the Company's working capital needs (as applicable);
- it does not reflect the significant interest expense or the cash requirements necessary to service interest or principal payments in respect of any borrowings;
- although depreciation and amortisation are non-cash charges, the assets being depreciated and amortised will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements; and
- other companies in Glencore International's industry may calculate these measures differently from how Glencore International does, limiting their usefulness as a comparative measure.

Adjusted EBIT and Adjusted EBITDA may not be indicative of Glencore International's historical operating results, nor are they meant to be a projection or forecast of the Company's future results.

Adjusted EBITDA pre-exceptional items, Adjusted EBIT pre-exceptional items and Income before attribution pre-exceptional items

Adjusted EBITDA pre-exceptional items, Adjusted EBIT pre-exceptional items and Income before attribution pre-exceptional items are Adjusted EBITDA, Adjusted EBIT and Income before attribution, respectively, excluding exceptional items. Exceptional items represent significant items of income and expense which, due to their nature or the expected infrequency of the events giving rise to them, are separated for internal reporting and analysis of Glencore International's results. Exceptional items mainly include impairment charges on inventories and other assets.

These measures are intended to provide additional information to investors and analysts, do not have any standardised meaning prescribed by IFRS and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. These measures exclude the impact of cash costs of financing activities and taxes, and the effects of changes in operating working capital balances, and therefore are not necessarily indicative of income from operations or cash flow from operations as determined under IFRS. Other companies may calculate these measures differently.

Net debt

Glencore defines net debt as total current and non-current borrowings and commodities sold with agreements to repurchase less cash and cash equivalents, marketable securities and readily marketable inventory. Glencore includes marketable securities and readily marketable inventory as cash equivalents in its internal definition of net debt. Readily marketable inventory comprises inventory that is readily convertible into cash due to their liquid nature, widely available markets and the fact that any associated price risk is covered. This includes, for example, LME approved inventory (such as copper or aluminium) held at LME warehouses. Given the liquid nature of these inventories and associated funding, which represents a significant share of current assets and liabilities, Glencore believes it is appropriate to consider them as cash equivalents.

The Directors believe this Non-IFRS Measure is a valuable tool in analysing its net debt levels and computing certain debt coverage ratios. This measure is intended to provide additional information to investors and analysts, does not have any standardised meaning prescribed by IFRS and should not be considered in isolation or a substitute for measures of performance prepared in accordance with IFRS.

Pro forma financial information

In this Prospectus, any reference to "pro forma" financial information is to information which has been extracted without material adjustment from the unaudited pro forma financial information contained in Section VII: "Unaudited Pro Forma Financial Information". The unaudited pro forma net assets statement contained in Section VII: "Unaudited Pro Forma Financial Information" is based on the balance sheet of Glencore International as at 31 December 2010, extracted without material adjustment from Section VI: "Historical Financial Information". The unaudited pro forma net assets statement includes certain adjustments in respect of the Global Offer, including the crystallisation of tax items in connection with the Restructuring. However, the unaudited pro forma net assets statement is not necessarily indicative of what the financial position of Glencore International would have been had the Global Offer occurred on 31 December 2010.

The unaudited pro forma financial information is for illustrative purposes only. Because of its nature, the pro forma financial information addresses a hypothetical situation and, therefore, does not represent Glencore International's actual financial position. Future results of operations may differ materially from those presented in the pro forma financial information due to various factors.

Rounding

Percentages and certain amounts included in this Prospectus have been rounded for ease of presentation. Accordingly, figures shown as totals in certain tables may not be the precise sum of the figures that precede them.

Credit ratings

Credit ratings included or referred to in this Prospectus have been issued by Moody's and Standard and Poor's, each of which is established in the European Union and has applied to be registered under Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies.

Currencies

In this Prospectus, references to "pounds sterling", "£", "GBP", "pence" or "p" are to the lawful currency of the United Kingdom; references to "U.S. dollars", "dollars", "U.S.$", or "cents" are to the lawful currency of the U.S., references to "Hong Kong dollars" or "HK$" are to the lawful currency of Hong Kong, references to "Euros" 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 "Swiss Francs", "Swiss francs" or "CHF" are to the lawful currency of Switzerland and references to "South African Rand" or "ZAR" are to the lawful currency of the Republic of South Africa.

The Offer Price will be stated in pounds sterling. On 29 April 2011 (being the last practicable date prior to the publication of this Prospectus), £1.00 = HK$12.974 and £1.00 = U.S.$1.667, based on the exchange rate quoted by Bloomberg on that date.

The Company prepares its financial statements in U.S. dollars. The basis of translation of foreign currency for the purpose of inclusion of the financial information set out in Section VI: "Historical Financial Information" is described in that Section. Information derived from this financial information set out elsewhere in this Prospectus has been translated on the same basis.

Unless otherwise indicated, the financial information contained in this Prospectus has been expressed in U.S. dollars.

Indicative exchange rates of the U.S. dollar against the Australian Dollar, Swiss Franc, Euro, pounds sterling, Kazakh Tenge and South African Rand comprising the average rate used for income statement information and the period end rate used for balance sheet information, are shown below:

	Period					
	Year ended 31 December 2008		Year ended 31 December 2009		Year ended 31 December 2010	
	Average rate	Period end rate	Average rate	Period end rate	Average rate	Period end rate
Currencies						
AUD:U.S.$	1.1738	1.4371	1.2615	1.114	1.0863	0.9768
CHF:U.S.$	1.0826	1.0645	1.0855	1.0338	1.0425	0.9368
EUR:U.S.$	0.6799	0.7192	0.7173	0.6974	0.7539	0.7453
GBP:U.S.$	0.5399	0.6914	0.6387	0.6194	0.647	0.6402
KZT:U.S.$	120.3303	121.125	147.6582	148.52	147.3884	147.4
ZAR:U.S.$	8.258	9.37	8.4165	7.3774	7.3289	6.6237

Presentation of reserves and resources information

This Prospectus contains information relating to the reserves and resources of some of Glencore's industrial assets which have been extracted or derived from the following technical reports contained in Section XIV: "Independent Technical Reports":

- in relation to the mineral reserves and mineral resources of Prodeco (comprising the Calenturitas mine and the La Jagua complex), the technical report prepared by Minarco Mine Consult Pty Ltd. ("MMC") and McElroy Bryan Geological Services Pty Ltd. ("MBGS") (the "Prodeco Report");
- in relation to the mineral reserves and mineral resources of Katanga, Mopani and Mutanda, the technical reports prepared by Golder Associates South Africa (Pty) Ltd. ("Golders") (the "Katanga Report", the "Mopani Report" and the "Mutanda Report", respectively); and
- in relation to the mineral reserves and mineral resources of Kazzinc, the technical report prepared by Wardell Armstrong International Ltd. ("WAI") (the "Kazzinc Report").

Such information must be read in connection with the relevant technical report.

In this Prospectus, the mineral reserves and mineral resources estimates in relation to Katanga, Mutanda, Mopani, Prodeco and Kazzinc, initially prepared by Glencore, have been substantiated by evidence obtained from the relevant MER provider's site visits and observations, analyses and other evidence and take account of all relevant information supplied by Glencore. The basis of preparation for the MERs is set out in more detail in each of these reports.

Oil and gas reserves and resources information

The RPS Report (as contained in Section XIV: "Independent Technical Reports") presents information concerning oil and gas reserves and resources in accordance with the definitions and guidelines set forth in the 2007/SPE/AAPG/WPC/SPEE Petroleum Resource Management System ("PRMS") which is approved by the Society of Petroleum Engineers as the standard for classification and reporting. As set out in the PRMS, "reserves" are "those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions". Reserves must further satisfy four criteria: they must be (i) discovered, (ii) recoverable, (iii) commercial and (iv) remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorised in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterised by development and production status. "Contingent resources" are defined by PRMS as "those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies". Contingent resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorised in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterised by their economic status. "Prospective resources" are defined by PRMS as "those quantities of petroleum estimated, as of a given date, to be

potentially recoverable from undiscovered accumulations by application of future development projects". Prospective resources have both an associated chance of discovery and a chance of development. Prospective resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.

Mineral reserves and mineral resources information

Glencore estimates its mineral reserves and mineral resources in accordance with internationally recognised mineral standards (which include the JORC Code and the 2007 edition of the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves ("SAMREC")) based on information compiled by Competent Persons (as defined by the JORC Code). Golders, MMC and MBGS and WAI have reviewed the mineral reserves and mineral resources estimates compiled by Glencore in respect of Katanga, Mutanda and Mopani, Prodeco and Kazzinc (as set out in the relevant MER contained in Section XIV: "Independent Technical Reports") and have stated the mineral reserves and mineral resources in respect of the relevant industrial asset to be in compliance with the JORC Code.

Mineral 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/or 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. Measured and indicated resources may therefore be viewed as the estimation stage prior to the application of more stringent economic criteria for the reserve definition, such as a rigorously defined cut-off grade and mine design outlines, along with allowances for dilution and losses during mining. It is common practice, for example, for companies to include in the resources category material with a reasonable expectation of being converted to reserves, but for which either the detailed mine planning work has not been undertaken or for which an improvement in economic conditions or exploitation efficiencies would be required to enable the company to exploit the resources economically. 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. Mineral reserves 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. The measured and indicated mineral resources can be reported as either being inclusive of those mineral resources modified to produce the ore reserves or additional to the ore reserves. In this Prospectus, measured and indicated resources are stated inclusive of reserves but with no allowance for ore loss or dilution. Inferred resources are stated on an exclusive basis.

Included in this Prospectus are various statements relating to mineral potential at Katanga, Mutanda, Mopani, Prodeco and Kazzinc. The relevant MER providers have reviewed the information supporting these statements compiled by Glencore and have stated the mineral potential as set out in the relevant technical report is in compliance with section 18 of the JORC Code. This disclosure of mineral potential, follows guidance in section 18 of the JORC Code; specifically, that the mineral potential should be expressed as a range of quantity and grade, with an explanation of the basis of the statement. The summary statement of potential for each target is expressed explicitly on the basis that (i) the potential range of quantity and grade is conceptual in nature, there has been insufficient exploration to define a mineral resource on the target and it is uncertain if further exploration will result in the discovery of a mineral resource on the target and (ii) the mineral potential constitutes a possible mineral deposit that is to be the target of further exploration.

Forward-looking statements

Certain information contained in this Prospectus, including any information as to Glencore's strategy, plans or future financial or operating performance constitutes "forward-looking statements". All statements, other than statements of historical fact, are forward-looking statements. The words "believe", "expect", "anticipate", "contemplate", "aim", "target", "plan", "intend", "continue", "budget", "estimate", "may", "should", "will", "would", "schedule" and similar expressions identify forward-looking statements.

Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Glencore, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. Such factors include, but are not limited to: the impact of global economic conditions; fluctuations in the currency markets; fluctuations in the spot and forward prices of certain commodities; changes in national and local government legislation, taxation, controls, regulations and political or economic developments in any countries where Glencore operates, or other countries in which Glencore may carry on business in the future; business opportunities that may be presented to, or pursued by, Glencore; Glencore's ability to successfully integrate future acquisitions; operating or technical difficulties in connection with mining or development activities; employee relations; availability and costs associated with mining inputs and labour; litigation; diminishing quantities or grades of reserves; adverse changes in Glencore's credit rating; and risk of trespass, theft and vandalism.

Investors are cautioned that forward-looking statements are not guarantees of future performance. Forward-looking statements may, and often do, differ materially from actual results. Any forward-looking statements in this Prospectus speak only as of the date of this Prospectus, reflect Glencore's current view with respect to future events and are subject to risks relating to future events and other risks, uncertainties and assumptions relating to Glencore's operations, results of operations, growth strategy and liquidity. Investors should specifically consider the factors identified in this Prospectus which could cause actual results to differ before making an investment decision. All of the forward-looking statements made in this Prospectus are qualified by these cautionary statements. Specific reference is made to "Risk Factors", Section I: "Information on Glencore" and Section IV: "Operating and Financial Review".

Subject to the requirements of the Prospectus Rules, the Disclosure and Transparency Rules, the Listing Rules, the Hong Kong Listing Rules or applicable law, the Company explicitly disclaims any intention or obligation or undertaking publicly to release the result of any revisions to any forward-looking statements in this Prospectus that may occur due to any change in the Company's expectations or to reflect events or circumstances after the date of this Prospectus.

Addressable markets

Included in this Prospectus are various statements relating to the size of the addressable markets for certain commodities in which Glencore acts as marketer. This information has been provided because Glencore considers these markets to be the relevant markets for consideration of its market shares.

Within the global production and supply of commodities, there are fragments of the market whose volumes are not accessible to a third party marketer such as Glencore. Therefore, these volumes should not be considered for the purpose of calculating market shares for that commodity. These fragments tend to fall within one of the three categories described below, although not all categories are deemed relevant to the calculation of the addressable market in each of Glencore's key commodities:

(i) Production in a vertically-integrated system: This relates only to intermediate products, such as a metallic concentrate or unprocessed agricultural products, which are moved between processing stages within a single company or vertically-integrated system, and do not require the assistance of a third party marketer to facilitate this.

(ii) Production consumed within a domestic/inland market: This relates to commodities that are produced and consumed domestically in a country and are therefore not exported. Glencore may still be involved in the import of these commodities into such country and therefore import volumes are included within the addressable market share calculation.

(iii) Production sold directly to end users: This relates primarily to finished products, such as a refined metal or processed agricultural products, which are sold directly to the consumers or end users by the producer without the assistance of a third party marketer.

All statements relating to "market share" or "addressable market" are statements of the Directors' beliefs, which have been calculated using a combination of data sourced from third party industry expert data providers and Glencore's own estimates. Furthermore, the different market dynamics of the various commodities which Glencore markets means that the calculation of market share positions and the size of the addressable markets may differ for each commodity.

The following tables set out the basis of calculation of the size of the addressable markets for the main commodities that Glencore markets, as well as the calculation of Glencore's approximate market shares in each of these markets. In each case, the source of the underlying data in each calculation is also indicated.

Basis of calculation

Metals and Minerals business segment

	Total market	Exclusions from addressable market	Addressable market	Glencore volumes marketed	Glencore's approximate % market share	Glencore's approximate % of total market
Calculation:	A	B	C (A−B)	D	E (D/C)	F (D/A)

A: Glencore defines the total market for each commodity within the Metals and Minerals business segment as total global production for that commodity based on data provided by CRU International Group ("CRU").

B: For commodities within the Metals and Minerals business segment, Glencore defines the addressable market as excluding: (i) for certain intermediate products, production within a vertically-integrated producing system, based on data provided by CRU; (ii) for certain intermediate products, all production within the Chinese domestic market, based on data provided by CRU; (iii) for certain finished metals, all volumes which are moved within a vertically-integrated producing system where those producers have downstream capability or which are sold directly by producers to end users without the use of an intermediary, based on data provided by CRU and Glencore's own estimates; and (iv) for certain finished metals, all production within the Chinese domestic market, based on data provided by CRU.

C: Addressable market is calculated as the total market (A) less exclusions from the addressable market (B).

D: Glencore volumes marketed are based on actual marketed volumes.

E: Glencore's market shares for commodities within the Metals and Minerals business segment are calculated as Glencore volumes marketed (D) divided by addressable market (C).

F: Glencore's share of total market for commodities within the Metals and Minerals business segment are calculated as Glencore's volumes marketed (D) divided by total market (A).

Commodity	Total market (million MT)	Exclusions from addressable market (million MT)	Addressable market (million MT)	Glencore volumes marketed (million MT)	Glencore's approximate % market share	Glencore's approximate % of total market
2010						
Zinc metal[2][3]	12.7	10.0[4]	2.7[4]	1.7	60[4]	13
Zinc concentrates[1][2][3] . .	24.8	20.0[4]	4.8[4]	2.4	50[4]	10
Copper metal[2][3]	18.7	15.9[4]	2.8[4]	1.4	50[4]	7
Copper concentrates[1][2][3]	46.9	40.8[4]	6.1[4]	1.8	30[4]	4
Lead metal[2][3]	9.0	8.3[4]	0.7[4]	0.3	45[4]	3
Lead concentrates[1][2][3] .	6.2	4.8[4]	1.4[4]	0.6	45[4]	10
Alumina[1][2]	81.6	64.0	17.6	6.7	38	8
Aluminium[1][2]	42.0	23.8	18.2	3.9	22	9
Nickel	1.4	N/A	1.4	0.2	14	14
Cobalt	0.077	N/A	0.077	0.018	23	23
Ferrochrome	9.1	N/A	9.1	1.5	16	16

Notes:

(1) Excludes production within a vertically-integrated producing system.

(2) Excludes all production within the Chinese domestic market.

(3) Excludes volumes sold directly by producers to end users without the use of an intermediary.

(4) Based on the mid-point estimated range for exclusions from addressable market figure.

Energy Products business segment

Commodity	Total market	Exclusions from addressable market	Addressable market	Glencore volumes marketed	Glencore's approximate % market share	Glencore's approximate % of total market
Calculation:	A	B	C (A – B)	D	E (D/C)	F (D/A)

A: Glencore defines the total market for crude oil and oil products within the Energy Products business segment as total global demand based on data sourced from the IEA, and defines the total market for coal and coke as total global production based on data provided by Merlin Trade and Consultancy Ltd.

B: For coal and coke within the Energy Products business segment, Glencore defines the addressable market being only seaborne export coal or coke, and so excludes all coal or coke which is not seaborne export. There are no exclusions from the addressable market for oil and oil products.

C: Addressable market is calculated as the total market (A) less exclusions from the addressable market (B).

D: Glencore volumes marketed are based on actual marketed volumes. For coal and coke, these volumes include attribution of volumes under agency and advisory agreements as well as on a principal basis.

E: Glencore's market shares for commodities within the Energy Products business segment are calculated as Glencore volumes marketed (D) divided by addressable market (C).

F: Glencore's share of total market for commodities within the Energy Products business segment are calculated as Glencore's volumes marketed (D) divided by total market (A).

Commodity	Total market (million MT)	Exclusions from addressable market (million MT)	Addressable market (million MT)	Glencore volumes marketed (million MT)	Glencore's approximate % market share	Glencore's approximate % of total market
2010						
Crude oil and oil products (million bbl/day)	87.8	N/a	87.8	2.5	3	3
Metallurgical coal	830.0	576.0	254.0	30	12	4
Thermal coal	4,556.0	3,864.0	692.0	196	28	4
Coke	575.0	562.8	12.2	0.7	6	Not meaningful
Total coal	5,961.0	5,002.8	958.2	226.7	24	4

Agricultural Products business segment

Commodity	Total market	Exclusions from addressable market	Addressable market	Glencore volumes marketed	Glencore's approximate % market share	Glencore's approximate % of total market
Calculation:	A	B	C (A – B)	D	E (D/C)	F (D/A)

A: Glencore defines the total market for each commodity within the Agricultural Products business segment as total global production for that commodity based on data provided by Informa and on data sourced from the United States Department of Agriculture.

B: For all commodities within the Agricultural Products business segment, Glencore defines the addressable market as being the traded or export market for that commodity, based on data provided by Informa and on data sourced from the United States Department of Agriculture.

C: Addressable market is calculated as the total market (A) less exclusions from the addressable market (B).

D: Glencore volumes marketed are based on actual marketed volumes.

E: Glencore's market shares for commodities within the Agricultural Products business segment are calculated as Glencore volumes marketed (D) divided by addressable market (C).

F: Glencore's share of total market for commodities within the Agricultural Products business segment are calculated as Glencore's volumes marketed (D) divided by total market (A).

Commodity	Total market (million MT)	Exclusions from addressable market (million MT)	Addressable market (million MT)	Glencore volumes marketed (million MT)	Glencore's approximate % market share	Glencore's approximate % of total market
2010						
Barley	171.3	155.4	15.9	3.8	24	2
Wheat (excl. durum wheat)	846.4	731.9	114.5	12.3	11	1
Corn	968.2	874.5	93.7	3.3	4	Not meaningful
Sun and rapeseed	99.6	87.5	12.1	3.1	26	3
Sunflower oil	12.2	8.1	4.1	0.8	20	7
Soybean	313.3	217.6	95.7	0.4	0.4	Not meaningful
Soybean oil	43.5	34.5	9.0	0.8	9	2
Soybean meal	175.7	118.4	57.3	2.9	5	2
Sugar	234	182.0	52.0	0.5	1	Not meaningful

U.S. considerations

Available information for U.S. investors

The Company has agreed that, for so long as any of the Ordinary Shares are "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, the Company will, during any period in which it is neither subject to Section 13 or 15(d) of the U.S. Securities Exchange Act of 1934, as amended (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, upon the request of such holder, beneficial owner or prospective purchaser, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act.

SECTION I: INFORMATION ON GLENCORE

Investors should read the whole of this Prospectus and not just rely upon the summarised information, including the tables, in this Section I. Where stated, information in this section has been extracted without material adjustment from Sub-section B of Section VI: "Historical Financial Information" and from Section XIV: "Independent Technical Reports". Investors can find further background information on the commodities that Glencore markets in Section XIII: "Information on Commodities".

Overview

Glencore is a leading integrated producer and marketer of commodities, with worldwide activities in the marketing of metals and minerals, energy products and agricultural products and the production, refinement, processing, storage and transport of these products. Glencore operates on a global scale, marketing and distributing physical commodities sourced from third party producers and own production to industrial consumers, such as those in the automotive, steel, power generation, oil and food processing industries. Glencore also provides financing, logistics and other services to producers and consumers of commodities. Glencore's long experience as a commodity merchant has allowed it to develop and build upon its expertise in the commodities which it markets and cultivate long-term relationships with a broad supplier and customer base across diverse industries and in multiple geographic regions. Glencore's marketing activities are supported by investments in industrial assets operating in Glencore's core commodities. Glencore's industrial, geographical, commodity, supplier and customer diversity, in combination with its long-term supplier and customer relationships, has enabled Glencore to operate profitably, even during periods in which a particular commodity, industry, customer or geographic region may be experiencing some weakness. In addition, Glencore's marketing operations are less correlated to commodity prices than its industrial operations, which makes Glencore's earnings less volatile than those of producers of metals and mining products and energy products that do not also have marketing and logistics operations.

As a marketer, Glencore is able to differentiate itself from other production entities as, in addition to focusing on minimising costs and maximising operational efficiencies, Glencore focuses on maximising returns from the entire supply chain, taking into account its extensive and global third party supply base, its logistics, risk management and working capital financing capabilities, extensive market insight, business optionality, its extensive customer base, strong market position and penetration in most commodities and economies of scale. In contrast, this is not the business model of Glencore's mainly industrial competitors who are generally not set up to exploit the full range of value added margin and arbitrage opportunities which exist throughout the commodity supply chain.

Glencore's consolidated revenues for the years ended 31 December 2009 and 31 December 2010 were U.S.$106,364 million and U.S.$144,978 million, and its income before attribution for the years ended 31 December 2009 and 31 December 2010 were U.S.$1,729 million and U.S.$4,106 million. As at 31 December 2010, Glencore's total assets amounted to U.S.$79,787 million. Measured by revenues, Glencore believes it was one of the world's largest privately held companies during this period.

Selected key financial information in relation to Glencore's marketing and industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010 is set out below. This information has been extracted without material adjustment from Section VI: "Historical Financial Information" except

where marked as unaudited. Unaudited information has been extracted without material adjustment from Glencore's accounting records.

	2008	2009	2010
		(U.S.$ million)	
Marketing activities			
Revenue (unaudited)[1]	141,876	97,804	133,977
Adjusted EBITDA pre-exceptional items[2]	3,215	1,606	2,367
Adjusted EBIT pre-exceptional items[2]	3,202	1,591	2,337
Industrial activities			
Revenue (unaudited)[1]	10,360	8,560	11,001
Adjusted EBITDA pre-exceptional items[2][3][4]	1,853	1,468	1,992
Adjusted EBIT pre-exceptional items[2][3][4]	1,291	861	1,111
Share of income from associates and dividends (excl. Xstrata)[4][5]	183	31	113
Share of income from associates (Xstrata)[4][5]	1,536	824	1,729
Capex	1,875	1,116	1,890
Group			
Revenue	152,236	106,364	144,978
Adjusted EBITDA pre-exceptional items[2][6]	6,787	3,929	6,201
Adjusted EBIT pre-exceptional items[2][6]	6,212	3,307	5,290

Notes:

(1) Revenue is not split between Marketing and Industrial activities in the audited Historical Financial Information set out in Section VI of this document and is therefore marked as unaudited. Total segment and total Group revenue is audited.

(2) Includes variable bonus and other corporate selling, general and administrative expenses.

(3) Excludes share of income from associates and dividends.

(4) Adjusted EBITDA pre-exceptional items plus Share of income from associates and dividends and Adjusted EBIT pre-exceptional items plus Share of income from associates and dividends are audited.

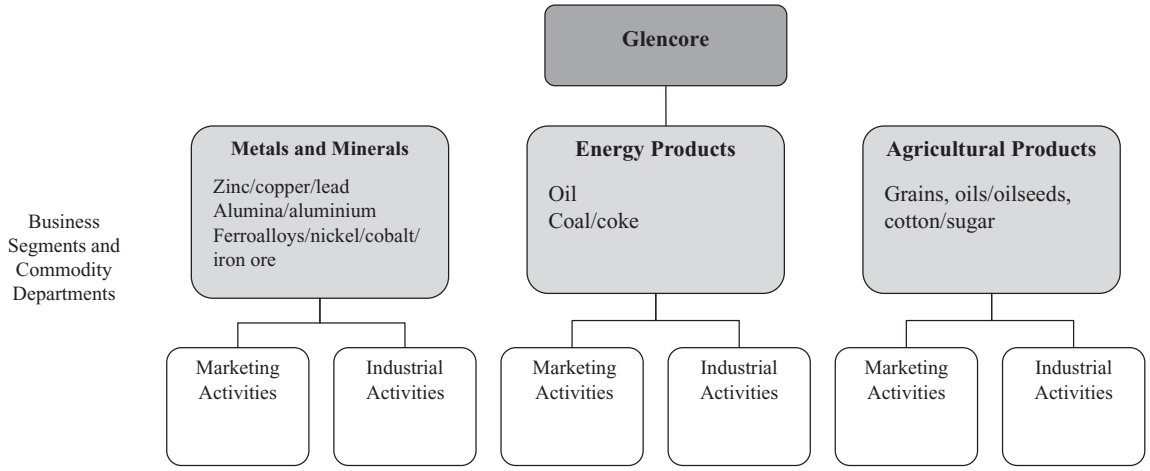
(5) Excludes exceptional items, see "Presentation of Information".

(6) Includes share of income from associates and dividends.

Glencore believes it is:

- the world's largest physical supplier of third party sourced commodities in respect of the majority of the metals and minerals it markets;
- among the world's largest non-integrated physical suppliers of crude oil and oil products;
- the world's largest participant in the supply of seaborne steam coal, including attribution of the volumes under a number of exclusive advisory and agency agreements with, amongst others, its associate company Xstrata;
- among the world's leading suppliers of sugar; and
- one of the leading exporters of grain from Europe, the CIS and Australia.

Glencore conducts its operations in three business segments: Metals and Minerals, Energy Products and Agricultural Products. The following chart summarises Glencore's business structure:



Glencore's business segments are responsible for managing the marketing, sourcing, hedging, logistics and industrial investment activities relating to the commodities which they cover.

Glencore's marketing and industrial investment activities are supported by a global network of more than 50 offices located in more than 40 countries throughout Europe, North, Central and South America, the CIS, Asia, Australia, Africa and the Middle East. Glencore's main offices are located in Baar (Switzerland), Stamford (Connecticut), London, Rotterdam, Beijing, Moscow and Singapore. This network provides Glencore with significant worldwide sourcing and distribution capabilities.

Glencore has an established record of successful strategic investments in industrial assets which have become an important component of its physical marketing activities. Glencore intends to continue to pursue selective strategic acquisitions and alliances to support and strengthen its core physical marketing activities as and when opportunities arise. Glencore evaluates each industrial asset investment opportunity on a stand-alone basis, however, also recognising its potential to support and strengthen Glencore's physical marketing activities or existing industrial coverage. Similarly, Glencore evaluates disposals of investments in industrial assets when they are no longer deemed to support its marketing activities and/or when compelling selling opportunities arise.

Selected key financial information in relation to the marketing and industrial activities of Glencore's business segments for the year ended 31 December 2010 is set out below. This information has been extracted without material adjustment from Section VI: "Historical Financial Information" except where

marked as unaudited. Unaudited information has been extracted without material adjustment from Glencore's accounting records.

	Metals and Minerals		Energy Products		Agricultural Products		Corporate and Other[4]		Total	
	As a percentage of Glencore		As a percentage of Glencore		As a percentage of Glencore		As a percentage of Glencore		As a percentage of Glencore	
	(U.S.$ million)	*%*	*(U.S.$ million)*	*%*	*(U.S.$ million)*	*%*	*(U.S.$ million)*	*%*	*(U.S.$ million)*	*%*
Marketing activities										
Revenue (unaudited)[1]	37,889	28	87,850	66	8,238	6	0	0	133,977	100
Adjusted EBITDA pre-exceptional items	1,401	59	470	20	659	28	(163)	(7)	2,367	100
Adjusted EBIT pre-exceptional items	1,401	60	450	19	659	28	(173)	(7)	2,337	100
Industrial activities										
Revenue (unaudited)[1]	7,322	67	1,499	14	2,180	20			11,001	100
Adjusted EBITDA pre-exceptional items[2][3]	1,820	91	313	16	88	4	(229)	(11)	1,992	100
Adjusted EBIT pre-exceptional items[2][3]	1,112	100	189	17	39	4	(229)	(21)	1,111	100
Share of income from associates and dividends (excl. Xstrata)[3][4]	48	42	46	41	19	17			113	100
Share of income from associates (Xstrata)[3][4]	N/A		N/A		N/A		1,729	100	1,729	100
Capex	1,001	53	818	43	71	4			1,890	100
Group										
Revenue	45,211	31	89,349	62	10,418	7	0	0	144,978	100
Adjusted EBITDA pre-exceptional items[5]	3,269	53	829	13	766	12	1,337	22	6,201	100
Adjusted EBIT pre-exceptional items[5]	2,561	48	685	13	717	14	1,327	25	5,290	100

Notes:

(1) Revenue is not split between Marketing and Industrial activities in the audited Historical Financial Information set out in Section VI of this document and is therefore marked as unaudited. Total segment and total Group revenue is audited.

(2) Excludes share of income from associates and dividends.

(3) Adjusted EBITDA pre-exceptional items plus Share of income from associates and dividends and Adjusted EBIT pre-exceptional items plus Share of income from associates and dividends are audited.

(4) Includes variable bonus and other corporate selling, general and administrative expenses, as well as share of income from Xstrata.

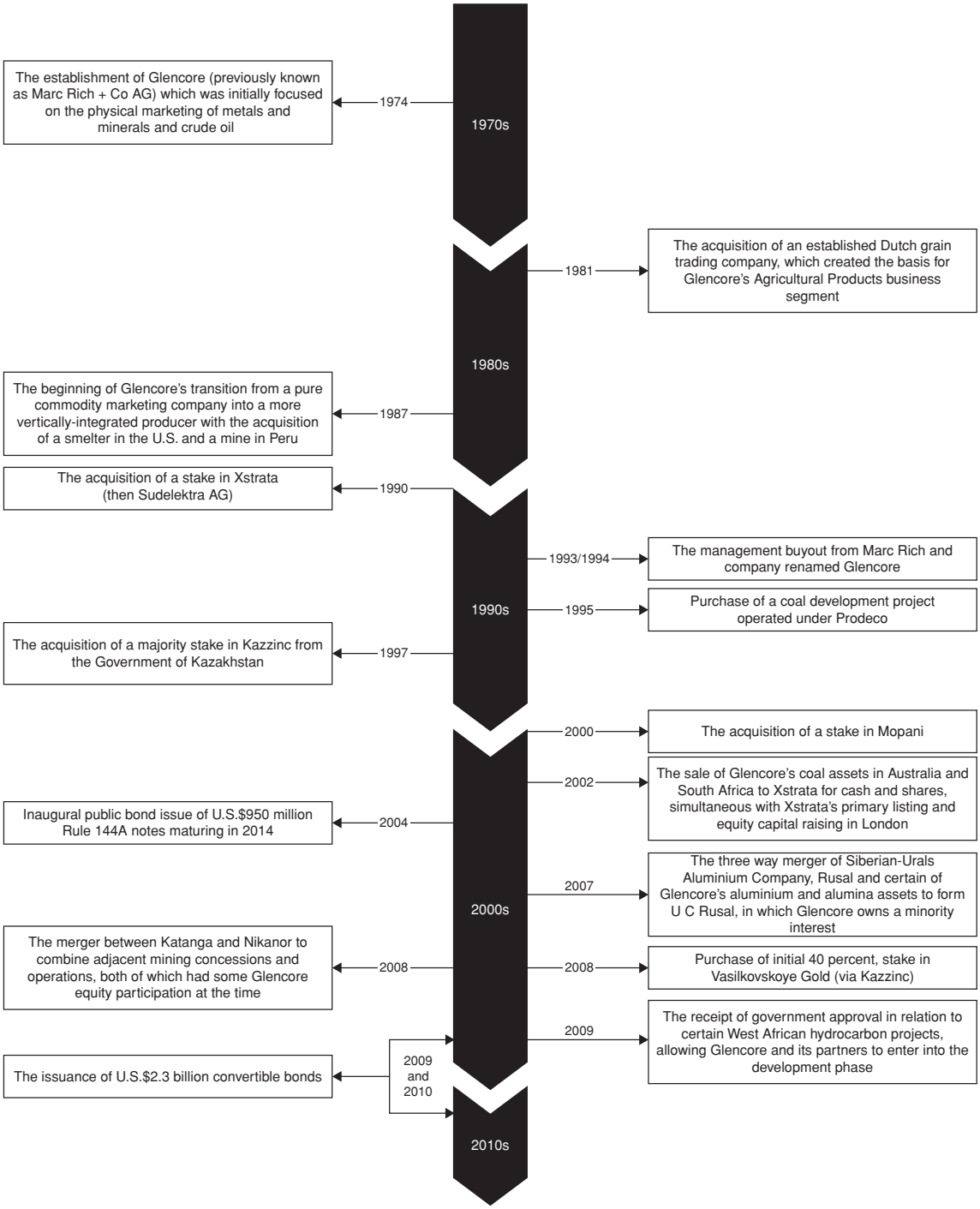
(5) Includes share of income from associates and dividends.

History

Glencore was founded in 1974 (previously known as Marc Rich + Co AG) and initially focused on the physical marketing of ferrous and non-ferrous metals and minerals and crude oil, and shortly thereafter expanded into oil products. In 1981, Glencore acquired an established Dutch grain trading company, which created the basis for its Agricultural Products business segment, and later Glencore added coal to its Energy Products business segment.

Starting in 1987, Glencore developed from a purely commodity marketing company into a diversified natural resources group through key acquisitions in mining, smelting, refining and processing in its three principal business segments. Glencore made its first equity investment in an industrial asset in 1987, when it acquired 27 per cent. of the Mt. Holly aluminium smelter in the United States and acquired its first controlling interest in an industrial asset in 1988, when it acquired a 66.7 per cent. interest in a zinc/lead mine in Peru. In 1994, the founder of Glencore sold his stake by way of a management buyout and the company was renamed Glencore International.

The following diagram sets out some key milestones in Glencore's history and shows its development over the course of 37 years into a leading diversified natural resources group with worldwide marketing and industrial activities.



Glencore has always been principally or wholly owned by management and key employees. See "Description of ownership structure" in Section II: "Directors and Corporate Governance", for further details of the group's ownership structure.

Competitive strengths

Glencore believes that its success has been built upon a unique combination of competitive strengths that have enabled it to grow into one of the world's largest diversified and vertically-integrated producers, processors and marketers of natural resources. These competitive strengths include:

Scale and leading market shares in commodity marketing globally

Glencore believes that it has significant market share positions in the addressable markets for zinc metal (approximately 60 per cent.), zinc concentrate (approximately 50 per cent.), copper metal (approximately 50 per cent.), copper concentrate (approximately 30 per cent.), alumina (approximately 38 per cent.), aluminium (approximately 22 per cent.), cobalt (approximately 23 per cent.), seaborne export thermal coal (approximately 28 per cent.) and grains (approximately nine per cent.). In addition, Glencore's daily oil sales volumes represent approximately 3 per cent. of the world's daily oil consumption. Glencore's global network of offices, its mining, smelting, refining and processing operations and its logistics and storage capabilities enable it efficiently to source, transport, process and physically deliver commodities throughout the world.

Glencore believes that being a major global physical marketer with leading market positions in its key commodities enables it to:

- flexibly and optimally manage product flows and logistics;
- access a broad spectrum of commodities in different grades and specifications to meet customer requirements;
- be competitive with pricing in tender and other bid processes;
- develop strong relationships with suppliers and customers;
- maintain a reputation for reliability with suppliers and customers;
- maintain knowledge of local market supply and demand dynamics;
- gain significant insight into trade flows and marketing requirements which enables continuous price discovery and rapid identification and investigation of arbitrage opportunities;
- benefit from economies of scale in relation to all key transaction components, including commodity purchases and sales, storage, transportation and risk management activities;
- market commodities linked to several different international exchanges;
- operate as a commodity supplier of last resort in difficult market conditions;
- act as a quasi-clearance house in the global physical commodities market; and
- identify strategic investment opportunities.

Core competence in commodity marketing, logistics, risk management and financing

Glencore is an established marketer of commodities and has, over a period of years, built an outstanding market reputation as a reliable supplier of quality product on a timely basis. In addition, Glencore's long experience has allowed it to build up the extensive market knowledge and insight, as well as full logistics capabilities, required to generate value added margins, as well as seek arbitrage potential throughout the physical commodity supply chain. Glencore's provision of value added services includes shipping, logistics, transportation, storage, risk management and marketing to producers and consumers of commodities, as well as arranging working capital and capital expenditure financing for its suppliers and customers, generally secured by future physical commodity flows and/or other assets.

The broad range of value added services Glencore can offer fulfils the needs of customers that do not have the equivalent internal capability and cannot outsource to other providers who can offer these services as seamlessly or efficiently as Glencore can provide them. Furthermore, Glencore's ability to arrange for short- and long-term financing for its customers and suppliers provides Glencore with long-term demand for and supply of its physical commodities. Glencore believes that the combination of its outstanding market reputation, its market knowledge and these value added services enables it frequently to be a preferred purchaser or supplier of commodities and generally to strengthen its long-term relationships

with customers and suppliers. By way of illustration, six, nine and eight of the top ten suppliers of each of the Metals and Minerals, Energy Products and Agricultural Products business segments, respectively, have been clients for more than ten years. Similarly, nine, ten and eight of the top ten customers of each of the Metals and Minerals, Energy Products and Agricultural Products business segments, respectively, have been clients for more than ten years.

Access to a large shipping fleet and various freight intermediaries provides Glencore with very useful information on trade flows. Access to storage and other logistical assets increases Glencore's flexibility to blend products (such as oil distillates, metal concentrates and coal) and to manage the delivery of products in line with specific contractual quality requirements. Furthermore, Glencore believes that all of the above enable Glencore quickly and efficiently to seize time (contango) and other arbitrage opportunities, as they arise.

Investments in high-quality low-cost extraction/processing operations with strong growth prospects

Glencore owns many high-quality assets, for example Prodeco, which produces high grade thermal coal, and Katanga, which has significant high grade copper and cobalt reserves. Glencore continues to invest in its high-quality, large-scale, long-life assets to increase production capacity over the coming years. Production is expected to expand materially at several of Glencore's mining and processing assets, including Katanga's plans to ramp up copper production from 70k MT of annualised fourth quarter 2010 production capacity to 310k MT by 2015. Kazzinc is finalising the completion of major new metallurgy facilities (new copper smelter and lead smelter upgrade), while gold production is expected materially to increase, following the commissioning of the new Vasilkovskoje gold mine during 2010. At Mutanda a 20k MT SXEW plant was commissioned in the fourth quarter of 2010 and a 40k MT SXEW plant is due to be commissioned during the third quarter of 2011. Glencore is also, together with its partners, investing in the development of its West African Oil Assets, namely an initial two fields in Blocks I and O, with the aim of achieving production in the first quarter of 2012 and first quarter of 2014 at daily production levels of 50,000 bbls and 37,500 bbls, respectively. Finally, Prodeco is targeting 20.7 million MT of coal production per annum by 2015 compared to 10 million MT of production in 2010.

Marketer with integrated production and processing capabilities

Glencore is differentiated from commodity production competitors in that, in addition to being a producer, it is also a substantial marketer of commodities produced by third parties. Accordingly, Glencore sees its ownership of industrial assets not solely as sources of self-produced commodities, but also as tools for increasing flexibility, optionality and security of supply and for gaining valuable market knowledge.

Glencore's ownership of certain controlled industrial assets provides Glencore with access to long-term supply and throughput for its marketing activities. Of Glencore's total marketing purchases in the year ended 31 December 2010, approximately 30.6 per cent. related to commodities mined, produced or processed within Glencore's controlled industrial assets and associates (excluding oil department purchases). In addition to its investments in controlled industrial assets, Glencore also has stakes in non-controlled industrial assets, some of which are publicly traded companies, with which Glencore has secured long-term, arm's-length marketing and off-take agreements. This positioning throughout the supply chain allows Glencore to capture value at each stage and differentiates Glencore from less integrated producers of commodities, which tend to be more focused on the competitive sale of own products rather than enhanced global sourcing, distribution and marketing activities.

Glencore's ownership of industrial assets and knowledge of supply and end user commodity demand conditions gained from its global network of offices and relationships spanning more than 7,200 suppliers and customers (excluding agricultural farming origination) also provide Glencore with valuable insight into the broad production spectrum, flexibility to optimise between its own production and third party suppliers, access to strategic markets and operating and technical know-how. In addition, these factors provide Glencore with valuable access and insight into a range of industrial assets investment opportunities and, more broadly, assist Glencore to manage its industrial assets portfolio, including production volume and expansion decisions, as well as asset purchase and disposal decisions. This combination also promotes credibility with customers and other suppliers by positioning Glencore as both producer and marketer and enhancing Glencore's overall reputation as a secure and reliable long-term supplier.

Diversified across multiple commodities, suppliers and customers

Glencore markets a broad range of commodities from a diverse supply base to a diverse customer base. Glencore's three business segments are involved in the sourcing and marketing of more than 90 distinct commodities, including various grades, blends and products within such categories. Glencore has, for a long time, developed and built upon its expertise in these commodities, cultivating long-term relationships with a broad supplier and customer base across diverse industries and geographic regions. No customer represented more than 3.4 per cent. of Glencore's trade receivables as at 31 December 2010, or accounted for more than 3.0 per cent. of its consolidated revenues in the year ended 31 December 2010. For the year ended 31 December 2010, Glencore's top ten customers represented approximately 16 per cent. of Glencore's consolidated revenues, with the top ten customers for the Metals and Minerals, Energy Products and Agricultural Products business segments representing approximately 18 per cent., 26 per cent. and 23 per cent. of the revenue for each business segment, respectively. Other than oil, which represented approximately 56 per cent. of Glencore's consolidated revenues in the year ended 31 December 2010, no single commodity department accounted for more than approximately 13 per cent. of such revenues in that period. In addition, the geographic diversity of suppliers, including Glencore's own industrial assets, mitigates the risk of exposure to any one particular country or region and helps to ensure a steady supply of commodities for the marketing operations. Glencore's top ten suppliers represented approximately 22 per cent. of Glencore's consolidated cost of goods sold, with the top ten suppliers for the Metals and Minerals, Energy Products and the Agricultural Products business segments representing approximately 36 per cent., 32 per cent. and 21 per cent. of the costs of goods sold for each business segment, respectively. This industrial, geographical, commodity, supplier and customer diversity, in combination with Glencore's long-term supplier and customer relationships, has enabled Glencore to operate profitably even during periods in which a particular commodity, industry, customer or geographic region may be experiencing some weakness.

The geographic diversity of Glencore's operations is further demonstrated by the fact that it has skills and experience in operating and providing services across the globe, including in Eastern Europe, Central Africa and South America. Part of Glencore's geographic diversity is built on its willingness to invest in geographies and markets in which some of its competitors have historically avoided or been slower to enter and Glencore believes that its successful track record in this regard has enabled it to gain an effective first-mover advantage in a number of countries with high-quality strategic resources. Many of Glencore's important industrial assets are located in the CIS, Central Africa and South America, in which Glencore has been successfully operating for many years. By following its established strategy of teaming with experienced local partners, fostering good working relationships with local and national governments, investing in local infrastructure and communities and actively managing risk, Glencore believes that it has established a competitive advantage over many of its peers in this respect.

Track record of value creation

Glencore has been consistently profitable since the completion of the management buyout in 1994 and has a track-record of growth across industry cycles. Over the past ten years, Glencore has achieved an average annual return on equity of 38 per cent., ranging between 15 and 61 per cent.

Glencore has a favourable track record of creating value through both acquisitions and organic development of existing assets in its portfolio. For example, since Glencore's initial 2007 investment in Nikanor, Glencore has accumulated a 74.4 per cent. interest in Katanga resulting in an internal rate of return of approximately 50 per cent., based on Katanga's attributable market capitalisation as at 29 April 2011. Similarly, Kazzinc's recent acquisition and development of a large gold deposit is expected to produce favourable returns. Finally, Prodeco, which Glencore acquired in 1995, which together with the subsequent acquisition and consolidation of nearby coal mines, is now the third largest producer of export thermal coal in Colombia and should improve its market position going forward as it targets 20.7 million MT of coal capacity per annum by 2015 compared to 10 million MT of production in 2010. Glencore has also disposed of various assets over the years, which resulted in substantial gains, including the merger of part of its alumina/aluminium asset portfolio into UC Rusal in 2007 and the sale of certain coal assets to Xstrata at the time of its London IPO and the Cerrejón stake thereafter. In total, over the past ten years, Glencore has spent approximately U.S.$9.6 billion on its capital expenditure in controlled industrial assets.

World-class management and Board

Glencore's management is led by Ivan Glasenberg (Chief Executive Officer), supported by Steven Kalmin (Chief Financial Officer) and the rest of the management team. Between them, management has more than 200 years of experience working together at Glencore, where they have a proven track record of developing and growing the business. Ivan Glasenberg and the commodity heads have worked at Glencore for an average of 16 years and each was promoted to their current position from within the Company. Notwithstanding their long service with Glencore, they have a relatively low average age of 46 years.

In addition to the management team and the relevant experience of the Board, Glencore believes that there is considerable strength and depth below this level and it seeks to develop internal talent to ensure that this remains the case. Senior employees are incentivised to optimise the performance of their departments and have been empowered to make the decisions to achieve this.

Assuming the Over-Allotment Option is not exercised, the Kazzinc Consideration Shares have not been issued and the Offer Price is set at the mid-point of the Offer Price Range the number of Ordinary Shares in issue following the Global Offer will be 6,893,292,886 and, of these, 83.6 per cent. will be held by Existing Shareholders. Such Shareholders will be subject to lock-ups as described in Section VIII: "Details of the Global Offer". Glencore believes that this ownership structure aligns the interests of Shareholders, management and employees and will continue to foster a culture of excellence, teamwork and accountability. Existing Employee Shareholders have also entered into lockup arrangements as described in Section X: "Additional Information". Certain employees will in due course be incentivised through participation in employee share plans established by Glencore as described in Section X: "Additional Information".

Resilient financial performance of marketing

Since the management buyout in 1994, Glencore's marketing operations have been profitable in every year of operation and have a proven track record of resilience through industry cycles. Glencore believes that the financial performance of the marketing operations is less correlated to commodity prices than the industrial operations, as Glencore uses price hedging strategies, meaning that marketing profitability is primarily determined by volume activity and associated value added supply chain margins and other market conditions rather than the absolute flat price itself. Owing to the marketing activities being less volatile than the industrial activities, their relative contribution to group results tends to increase during times of falling commodity prices, such as occurred during the second half of 2008 and first half of 2009.

This lower correlation with commodity prices makes Glencore's earnings less volatile than those of producers of metals, mining and energy products that do not also have marketing and logistics operations. For example, in the period of the second half of 2008, where the Thomson Reuters Equal Weight Continuous Commodity Index fell 20 per cent. (as compared to the first half of 2008), Glencore's marketing operations reported positive net income before exceptional items for the same period. Glencore believes that the resilient financial performance of marketing will contribute to its ability to adhere to its stated dividend policy as described in this Section I.

Furthermore, because the marketing operations' funding requirements are highly linked to commodity prices, during periods of falling commodity prices (as experienced in the fourth quarter of 2008 in particular), the marketing operations require less working capital. Accordingly, the marketing activities tend to generate significant amounts of cash (via release of working capital) during periods of low commodity prices (such as those which occurred at the end of 2008), at a time when industrial operations tend to be less profitable and cash generative.

Barriers to entry

The advantages provided by scale, global reach and a solid track record are also believed to present significant barriers to sustainable competitive entry into the global physical commodity marketing industry, which requires, amongst other attributes, substantial access to credit markets and a global network which supports the assembly of logistics and risk management capabilities and strong producer relationships.

Strategy

Glencore's strategy is to maintain and build upon its position as one of the world's largest diversified natural resources marketing companies. Glencore's key strategic objectives include:

Continue to leverage geographic scope and diversification of operations

Glencore already has a large geographic footprint, with more than 50 offices in more than 40 countries around the world and, in many cases, industrial assets in key commodity producing and consuming locations. Similarly, Glencore's operations are already extremely diverse, covering a wide range of commodities, industries, suppliers and customers. Glencore's geographic scope and diversification of operations have allowed it to develop a track record of reliable supply performance with other large, global companies such as BHP Billiton and Shell. Glencore intends to build upon its position as one of the world's largest physical commodity suppliers and track record of extending product and geographical range by continuing to target market share increases in the geographies in which it currently operates and further expansion in emerging markets. Glencore believes that this strategy will allow it flexibly to align the geographic scope and diversity of its operations with the evolving global flows of natural resources. Glencore believes that the global scope of its operations will enable it to continue to supply a diversified range of physical commodities to its existing customer base and provide opportunities to continue developing new producer and consumer relationships and selectively target new business opportunities worldwide. Furthermore, Glencore believes that its geographic scope in countries and markets in which some of its competitors have historically avoided, or been slower to enter, has and will continue to provide an effective first-mover advantage in a number of geographies with high-quality strategic resources such as the CIS, parts of South America, the African Copperbelt and Australia.

Capitalise on strategic investments in industrial assets

Glencore's strategic investments in industrial assets are an important component of its physical sourcing strategy for its marketing activities, and Glencore believes these investments provide a competitive advantage over its marketing peers which are less vertically integrated, both upstream and downstream, and which do not have the market presence to build up the strong supply relationships that Glencore enjoys. Glencore's investments in industrial assets also provide it with other advantages such as information, technical expertise and local presence. While Glencore intends to remain focused on physical commodity sourcing, distribution and marketing, it also intends to continue to pursue selective strategic acquisitions and alliances which support and strengthen its core physical marketing and value added activities where such acquisitions have their own industrial and financial justification as and when such opportunities arise. Glencore believes that investment opportunities will continue to be created by, among other things, (i) the privatisation of natural resources producers in primarily emerging markets, (ii) the rebalancing of asset portfolios by other players in the natural resources industry and (iii) further industry consolidation as smaller producers sell out and/or seek capital to fund growth. Glencore will continue to apply its investment criteria to these opportunities, pursuing investments in industrial assets that are of strategic importance to its core business and that are projected to achieve its targeted return-on-capital objectives on a stand-alone basis. Glencore will continue to identify investment opportunities in which value can be created through the application of its market knowledge and operational and technical know-how. Similarly, Glencore evaluates disposals of certain investments, from time to time, particularly when they are no longer deemed to support its core business and/or when attractive selling opportunities arise.

Use additional capital and liquidity to grow the business

Glencore believes the Global Offer will provide it with the financial resources needed to move it to the next stage of its development and achieve further sustainable growth. More specifically, the Global Offer will provide Glencore with an upfront capital injection and, going forward, access to the equity capital markets. The amounts attributed out of net income for the year to profit participation shareholders are presented within "Invested Capital", comprising equity share capital, reserves, accumulated amounts attributed to profit participation shareholders and non-controlling interests. All amounts attributed to profit participation shareholders are to convert to ordinary shares in the Company as part of the Global Offer. Such conversion of existing partnership interests into traditional permanent equity capital on Glencore's balance sheet is also likely lead to enhanced and/or more robust credit ratings. Glencore

intends to use this additional capital and access to liquidity, in combination with its existing brand, scale, product portfolio and logistics capabilities, to grow the business by, for example:

- investing in and expanding its existing industrial and logistics capacity;
- increasing the volumes marketed, for example, by purchasing additional commodities, in each case allowing Glencore to take advantage of additional opportunities which may present themselves in the market; and
- acquiring new industrial and logistics businesses as and when appropriate opportunities arise.

Focus on cost management and further enhancing logistical capabilities

Glencore intends to continue its focus on cost control and operational efficiencies at the industrial assets it controls and maintain its focus on the sourcing of competitively priced physical commodities from reliable third party suppliers. Glencore intends to supplement this focus on low-cost production and competitive sourcing with the continued development of its transport, shipping, storage and other logistical capabilities and, where appropriate, its ability to source these services from third parties at attractive levels. Glencore believes that the continued focus on these factors will enable it to continue to benefit from and exploit arbitrage opportunities occurring in the physical commodities markets in which it operates.

Maintain conservative financial profile and investment grade ratings

Glencore's conservative financial profile and investment grade credit ratings (currently BBB− from Standard & Poor's and Baa2 from Moody's) have enabled it consistently to access the bank and international debt capital markets on competitive terms to obtain required funding and maintain healthy levels of liquidity. Glencore intends to continue to manage its financial position around maintaining its investment grade credit ratings.

Disciplined risk management

Glencore already has a highly disciplined approach to risk management supported by its flat organisational structure and the privately owned nature of the business. Glencore intends to continue its focus in this key area by maintaining and expanding its centralised risk management resources and information systems and continuing to adopt and follow policies which are intended to mitigate and manage commodity price, credit and political risks. Examples of such policies which are already in place include:

- Minimise price risk: Glencore routinely hedges its exposure to price movements in its marketing inventories and forward purchase and sale commitments through futures and swap transactions or physically sells forward at pre-determined prices—in 2010, around 98 per cent. of Glencore's marketing inventory was covered by a sale at a pre-determined price or a hedge, which virtually eliminated Glencore's price risk on this inventory;
- Minimise credit risk: Glencore seeks to reduce the risk of non-payment by its customers by setting limits on open accounts extended to certain more creditworthy customers and by imposing credit support requirements and/or purchasing credit insurance products in respect of remaining customers; and
- Minimise political risk: Glencore seeks to remain diversified and where possible to obtain political risk insurance from creditworthy financial institutions in situations where Glencore believes that obtaining such insurance is financially prudent.

Place highest priority on employees, the environment and local communities

Glencore places the highest priority on its employees, the environment and the local communities where it operates. Regarding employees, Glencore takes a broad approach to employee welfare and will seek to maintain and improve its strong health and safety record. Regarding the environment, Glencore will demand high environmental performance standards from its controlled operations and, while executing marketing and logistics activities, to work with its partners and suppliers to ensure similar standards are demanded within the supply chain, as well as demanded of its non-controlled operations. Regarding local communities, Glencore will consult with and invest in the local communities where it operates.

Marketing activities—group level

Functions of the marketing activities

Glencore's marketing activities source a diversified range of physical commodities from third party suppliers and from industrial assets in which Glencore has full or part ownership interests. These commodities are sold, often with value added services such as freight, insurance, financing and/or storage, to a broad range of consumers and industrial commodity end users, with many of whom Glencore enjoys long-term commercial relationships. As a marketer, Glencore is able to differentiate itself from other production entities as, in addition to focusing on minimising costs and maximising operational efficiencies, Glencore focuses on maximising returns from the entire supply chain, taking into account its extensive and global third party supply base, its logistics, risk management and working capital financing capabilities, extensive market insight, business optionality, extensive customer base, strong market position and penetration in most commodities and economies of scale. In contrast, this is not the business model of Glencore's mainly industrial competitors who are generally not set up to exploit the full range of value added margin and arbitrage opportunities which exist throughout the commodity supply chain.

Types of arbitrage strategies

Many of the physical commodity markets in which Glencore operates are fragmented or periodically volatile. As a result, discrepancies generally arise in respect of the prices at which the commodities can be bought or sold in different geographic locations or time periods, taking into account the numerous relevant pricing factors, including freight and product quality. These pricing discrepancies can present Glencore with arbitrage opportunities whereby Glencore is able to generate profit by sourcing, transporting, blending, storing or otherwise processing the relevant commodities. Whilst the strategies used by Glencore's business segments to generate such margin vary from commodity to commodity, the main arbitrage strategies can be generally described as being:

- geographic: where Glencore leverages its relationships and production, processing and logistical capabilities in order to source physical commodities from one location and deliver them to another location where such commodities can command a higher price (net of transport and/or other transaction costs);
- product-related: where it is possible to exploit the blending or multi-use characteristics of the particular commodities being marketed, such as the various crude oil products, coal or concentrates, in order to supply products which attract higher prices than their base constituents, or exploit existing and/or expected price differentials; and
- time-related: where it is possible to exploit a difference between the price of a commodity to be delivered at a future date and the price of a commodity to be delivered immediately, where the available storage, financing and other related costs until the future date are less than the forward pricing difference.

Glencore uses market information made available by its marketing and industrial teams across its many locations to identify arbitrage opportunities. Glencore's marketing and investment activities and relationships with producers and consumers of raw materials are supported by a global network of more than 50 offices providing sourcing and distribution capabilities located in more than 40 countries throughout Europe; North, Central and South America, the CIS, Asia, Australia, Africa and the Middle East. This network provides Glencore with visibility over shifting supply and demand dynamics in respect of significant volumes of physical commodities across the globe. The detailed information from Glencore's widespread operations and close relationships with producers, consumers and logistics providers is available to Glencore's marketing operations and often enables them to identify opportunities, taking into account Glencore's extensive logistics capabilities, to source and supply physical commodities at attractive margins.

Types of marketing activities

Glencore's marketing activities can be categorised in order of focus as follows:

- Base supply chain activities: Glencore's primary marketing activities are those performed in the ordinary course of its global sourcing and distribution of commodities, including the provision of multiple value added services across the full supply chain and seeking arbitrage opportunities (discussed above) as they frequently arise.

- Event-driven activities: Glencore also seeks to optimise around an event or an anticipated event such as unexpectedly good or bad weather conditions, transport bottlenecks or failures (for example, a train derailment) or a labour or production issue as its global network alerts it to the possibility of such an event occurring or implications where such event has occurred. These types of events often cause global and/or regional "market tightness" (that is, a situation where available supply is insufficient to meet demand in a particular market) and Glencore's marketing operations will often be able to derive enhanced returns from such market conditions. These situations are, of course, not predictable, but generally occur reasonably frequently during any particular year.
- Price risk activities: Glencore also engages in some position taking within its marketing activities in which it applies its deep market intelligence and analysis to seek to profit from movements in the price and/or spread of a particular commodity, for example, by correctly anticipating a change in the price of a commodity and sourcing that commodity at a lower price than will be available later or selling that commodity at a higher price than will be available later. Glencore engages in price risk activities only in accordance with its risk policies and limits and price risk activities account for the substantial minority of Glencore's overall marketing operations.

Types of contractual arrangements

Glencore's marketing activities can be further segmented according to how much risk Glencore takes on a particular transaction:

- Purchase/off-take agreements: Under these arrangements, representing the substantial majority of transactions (approximately 99.9 per cent. of the Glencore Group's total revenues in 2008, 2009 and 2010), Glencore markets commodities which it purchases as principal (that is, commodities of which Glencore becomes the legal owner) and will receive nothing if it is unable to sell the commodity. Glencore ordinarily hedges or sells forward these commodities, meaning that it does not assume all the price or selling risk.
- Agency and advisory arrangements: Under these arrangements (which represent approximately 0.1 per cent. of the Glencore Group's total revenues in 2008, 2009 and 2010), Glencore markets commodities owned by a third party and is generally paid a fixed fee per unit of goods sold and/or a percentage of the sales revenue. Glencore therefore does not take principal purchase risk and derives fee-based income in respect of marketing services provided.

Glencore mitigates credit and performance risk in relation to suppliers and customers through the extensive application of measures such as credit insurance, letters of credit, security arrangements and/or bank and corporate guarantees. Glencore also leverages its network of global offices, which have direct access to and keep close relationships with its customers and suppliers.

There was no material non-performance by the Glencore Group of its contractual obligations in 2008, 2009 or 2010.

Logistics

Glencore's logistics operations are a key part of its marketing operations as they enable Glencore to fulfil its marketing obligations and to maximise arbitrage opportunities created by demand and supply imbalances. Physical sourcing and marketing of commodities requires highly professional handling and shipment of such goods from the supplier to the customer, including storage activities, as required. Typically, the staff handling the physical movement of goods (the "traffic team") account for a significant proportion of the headcount of a business segment. Glencore's dedicated chartering teams actively trade freight to gain market knowledge and volume benefits. The freight element of transactions is furthermore used to maintain maximum physical optionality so that full value can be extracted from the underlying commodity positions of each department, thereby complementing Glencore's overall ability to seize geographic and time spread arbitrage opportunities as they arise.

Competitors

Glencore believes that physical commodity marketing is a volume-driven business requiring highly professional risk management, substantial financial resources, market knowledge and product and logistical expertise. Glencore believes that it is the most diversified and globally active physical commodity sourcing and marketing company. Glencore believes that the majority of its competitors by segment are niche players that tend to focus on a specific commodity group or geographic area, or concentrate more

heavily on commodity-related industrial activities such as mining, drilling, smelting, processing and refining. In view of Glencore's diversification in different commodity groups and global geographical presence and scale, Glencore does not believe that there is a precisely comparable company or peer group that can be defined as competing directly with Glencore. However, three types of physical commodity marketing companies compete with Glencore indirectly or directly in certain markets. These include:

- large participants active in specific commodity portfolios, such as Cargill in agricultural products and Vitol Group in oil;
- captive marketing vehicles of major oil and metals producers and processors, such as Total, BP and BHP Billiton (though these companies are less focused on third party marketing than Glencore); and
- smaller marketing companies whose operations are more limited to particular commodities and/or to geographic areas, such as Noble Group.

Industrial activities—group level

Glencore's ownership of controlled and non-controlled industrial assets is seen as both a source of potential and desirable stand-alone financial returns and overall business diversification, complemented by their very useful source of physical commodities into Glencore's marketing arm and access to further market insight and technical know-how. Glencore believes that its corresponding reduced reliance on third parties helps to ensure that suppliers and customers alike see Glencore as a very reliable, and therefore desirable, counterparty, given its integrated business model.

Glencore capitalises on investment opportunities created by, among other things, (i) the privatisation of natural resources producers primarily in emerging markets, (ii) the rebalancing of asset portfolios by other players in the natural resources industry and (iii) further industry consolidation as smaller producers sell out and/or seek capital to fund growth. Any decision to acquire or dispose of an industrial asset is based on the stand-alone potential of the asset and its potential contribution to Glencore's marketing activities and requires group level approval. Once acquired, an asset is held within one of the business segments (the only major exception to this is Xstrata, which is held between the Metals and Minerals and Energy Products business segments as it supplies commodities to both segments). The business segments manage the controlled and non-controlled industrial assets via hands-on "asset controllers" to interface between the asset and Glencore in respect of day-to-day operating, financial and commercial matters. Glencore's approach to the management of its industrial assets differs from some of its key competitors in that Glencore encourages its industrial assets to focus primarily on operating performance, which those businesses can largely control and influence, leaving Glencore to handle marketing and distribution activities as part of its integrated global system.

Principal business segments

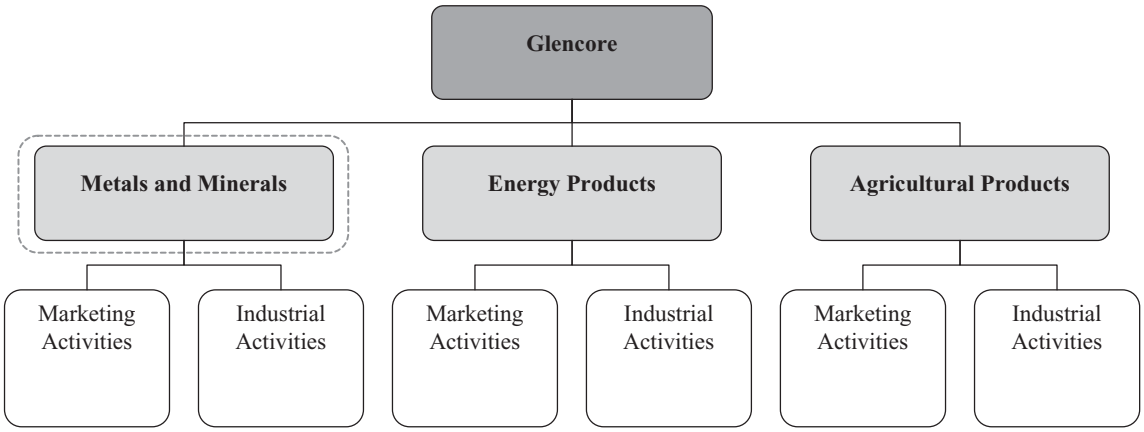
Glencore's three business segments focus on the following commodity departments.

- The Metals and Minerals business segment focuses on the following commodity departments: zinc/copper/lead, alumina/aluminium and ferroalloys/nickel/cobalt/iron ore. The business segment also markets some gold, silver, tin and other by-products such as sulphuric acid. The activities of Glencore's Metals and Minerals business segment are supported by ownership interests in controlled and non-controlled industrial assets such as mining, smelting, refining and warehousing operations.
- The Energy Products business segment focuses on the following commodity departments: oil/oil products and coal/coke. The activities of Glencore's Energy Products business segment are supported by ownership interests in controlled and non-controlled coal mining and oil production operations as well as investments in strategic handling, storage and freight equipment and facilities.
- The Agricultural Products business segment focuses on the following commodities: grains (including wheat, maize and barley, oils/oilseeds, cotton and sugar). The activities of Glencore's Agricultural Products business segment are supported by investments in controlled and non-controlled storage, handling, processing and port facilities in strategic locations.

Each of Glencore's business segments undertakes both marketing and industrial asset investment activities and is responsible for managing the marketing, sourcing, hedging, logistics and industrial investment activities relating to the relevant commodities in each business segment.

Metals and Minerals

Introduction (Metals and Minerals business segment)



The Metals and Minerals business segment focuses on the following commodity departments: zinc/copper/lead, alumina/aluminium and ferroalloys/nickel/cobalt/iron ore. The business segment also markets some gold, silver, tin and other by-products such as sulphuric acid. The activities of Glencore's Metals and Minerals business segment are supported by ownership interests in controlled and non-controlled industrial assets such as mining, smelting, refining and warehousing operations. The marketing of metals and minerals commodities is co-ordinated primarily through Glencore's Baar office.

Selected key financial information in relation to the Metals and Minerals business segment's marketing and industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010 is set out below. This information has been extracted without material adjustment from Section VI: "Historical Financial Information" except where marked as unaudited. Unaudited information has been extracted without material adjustment from Glencore's accounting records.

	2008	2009	2010
	(U.S.$ million)		
Marketing Activities			
Revenue (unaudited)[1]	34,565	30,221	37,889
Adjusted EBITDA pre-exceptional items[2]	1,117	553	1,401
Adjusted EBIT pre-exceptional items[2]	1,117	553	1,401
Industrial Activities			
Revenue (unaudited)[1]	6,120	5,170	7,322
Adjusted EBITDA pre-exceptional items[2][3][4]	1,099	1,072	1,820
Adjusted EBIT pre-exceptional items[2][3][4]	658	551	1,112
Share of income from associates and dividends (excl. Xstrata)[4]	195	(53)	48
Capex	1,062	607	1,001
Total Metals & Minerals			
Revenue	40,685	35,391	45,211
Adjusted EBITDA pre-exceptional items[2][5]	2,411	1,572	3,269
Adjusted EBIT pre-exceptional items[2][5]	1,970	1,051	2,561

Notes:

(1) Revenue is not split between Marketing and Industrial activities in the audited Historical Financial Information set out in Section VI of this document and is therefore marked as unaudited. Total segment and total Group revenue is audited.

(2) Includes corporate selling, general and administrative expenses, but excluding variable pool bonus accrual, which is recorded at group/corporate level.

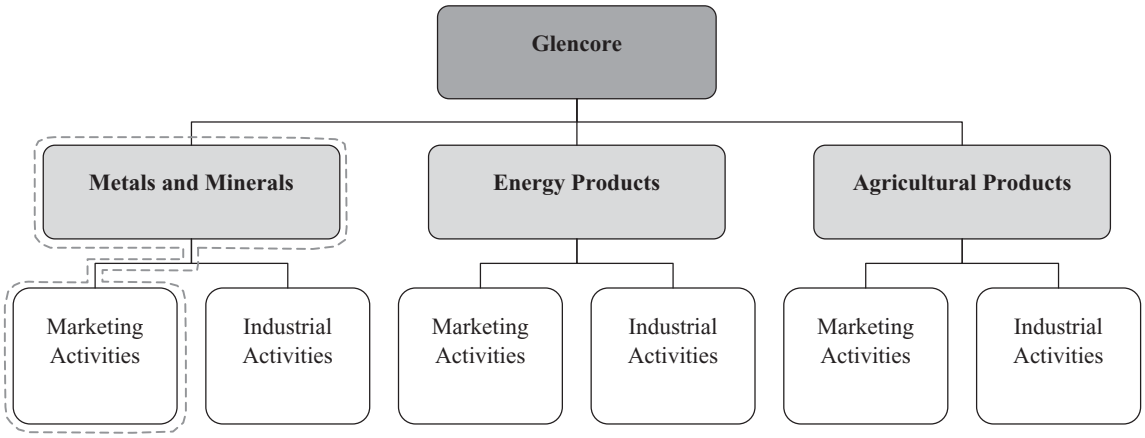
(3) Excludes share of income from associates and dividends.

(4) Adjusted EBITDA pre-exceptional items plus Share of income from associates and dividends and Adjusted EBIT pre-exceptional items plus Share of income from associates and dividends are audited.

(5) Includes share of income from associates and dividends.

The Metals and Minerals business segment currently has some 522 employees globally (excluding individuals employed within Glencore's industrial activities), with approximately 230 of these employees based in Baar, Switzerland. This business segment also employs some 43,000 individuals globally in its industrial activities.

Marketing activities (Metals and Minerals business segment)



The table below sets out the approximate marketing volumes sold to third parties of each main commodity handled by the Metals and Minerals business segment in the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

Marketing volumes sold to third parties

		2008	2009	2010
Zinc metal	million MT	1.0	1.3	1.7
Zinc concentrates	million MT	2.6	2.5	2.4
Copper metal	million MT	1.4	1.4	1.4
Copper concentrates	million MT	2.2	2.0	1.8
Lead metal	million MT	0.2	0.4	0.3
Lead concentrates	million MT	0.5	0.5	0.6
Gold	'000 ounces	447	578	589
Silver	'000 ounces	13,604	11,422	8,527
Alumina	million MT	6.5	5.8	6.7
Aluminium	million MT	2.4	3.2	3.9
Ferroalloys (incl. agency)	million MT	1.8	2.2	2.6
Nickel	'000 MT	156.9	175.3	193.9
Cobalt	'000 MT	25.5	23.7	17.9
Iron ore	million MT	0.9	4.8	9.3

Glencore acquired the LME accredited Pacorini metals warehousing business in the third quarter of 2010, which operates warehousing facilities in Europe, the U.S., the Middle East and Asia, including China. The acquisition of the metal warehousing business of the Pacorini Group reinforces and broadens Glencore's worldwide distribution capabilities, allowing further direct access to storage capacity across a range of important geographic locations which enhances and supports its global marketing operations, thereby providing increased optionality.

Examples of marketing strategies for metals and minerals business segment include:

- Due to obsolescence risk, alumina is typically moved on a first-in, first-out basis and needs to be stored in optimum conditions in order to maintain levels of quality. However, Glencore has a greater capacity than many of its competitors for storing and/or transporting alumina, which allows it to take advantage of geographic and time arbitrage opportunities and logistics differentials. In particular, Glencore believes that its willingness and flexibility to store larger amounts of alumina in China than its competitors represents a competitive advantage in this growing market.

- Glencore also seeks to exploit geographic and time arbitrage opportunities and logistics differentials in relation to alumina through the use of physical swap arrangements and through optimising delivery allocations.
- Glencore uses its established presence in the Chinese market to exploit arbitrage opportunities between the LME and the SHFE in the aluminium market.
- Glencore uses its global presence and ability to trade on several exchanges and geographical markets to exploit arbitrage opportunities between the various exchanges on which each of zinc, copper, lead, silver and gold are traded. This was particularly important in 2009 and 2010 when Asian markets led the recovery in commodity prices.
- Glencore uses its ability to warehouse zinc, copper and lead at either its own production facilities, free of charge, or at warehouses, owned (Pacorini Group) or subject to long-term leases, to benefit from carry trades, that is, to sell metal at higher future prices in a contango market and to exploit such time arbitrage opportunities as they present themselves.
- Glencore uses its access to a wide range of qualities of concentrates and its blending facilities to exploit product arbitrage opportunities, that is, to convert lower priced concentrates through the blending process into higher value concentrates.
- Glencore uses its knowledge of supply and demand dynamics, obtained through its physical marketing activities, to take advantage of expected movements in underlying commodity prices and supply and demand curves.

Zinc/copper/lead commodity department (marketing activities, Metals and Minerals business segment)

Overview

The zinc/copper/lead commodity department is run as an integrated business managing the production and global marketing of refined metals and concentrates. In addition to zinc, copper and lead, the commodity department also markets tin, silver and gold, which are typically mined in conjunction with zinc, copper and lead ores, as well as sulphuric acid, a by-product of the smelting process. The commodity department has a global presence, sources commodities from all key producing regions and has relationships with consumers in the key consuming countries.

Market

Glencore believes that it has a substantial share of the relevant addressable markets, amounting to approximately 60 per cent. for zinc metal, approximately 50 per cent. for copper metal and approximately 45 per cent. for lead metal. Glencore also believes that it has leading positions in the addressable concentrates markets of approximately 50 per cent. for zinc concentrates, approximately 30 per cent. for copper concentrates and approximately 45 per cent. for lead concentrates.

Suppliers

The zinc, copper and lead operations benefit from a geographically diverse portfolio of industrial assets, located across five continents, in each of the key producing regions for these commodities. In the year ended 31 December 2010, the zinc, copper and lead operations sourced approximately 22 per cent. of material from their stakes in controlled industrial assets. Approximately 65 per cent. of volumes marketed (in value terms) in the year ended 31 December 2010 were sourced from the top ten suppliers, and nine of the top ten suppliers in the year ended 31 December 2010 were also top ten suppliers in the year ended 31 December 2009, reflecting long-term relationships, a stable supplier base and the importance of a secure long-term supply chain to Glencore. Nine of these top ten suppliers operate under predominantly long-term contracts. One top ten supplier operates under short-term contracts; however, it is effectively a long-term agreement due to the length of relationship and significant volumes supplied. Glencore believes that approximately 80 per cent. of volumes marketed, including those which are sourced through industrial assets, are secured through long-term agreements ranging from one year contracts to 15-year agreements and "evergreen" contracts (which automatically renew each year unless notice of termination is given). Long-term supply agreements with third parties, combined with supply from industrial assets, enhance Glencore's reputation as a reliable supplier, which is important for customers who are reliant on both timeliness and quality of supply for the continuation of their operations.

Glencore's main own sources of supply for zinc metal are Kazzinc, Portovesme and AR Zinc and, together, Glencore's controlled industrial assets accounted for some 28 per cent. of the zinc metal marketed during the year ended 31 December 2010. Glencore's main own sources of supply for the zinc concentrates are Los Quenuales and Sinchi Wayra and, together, Glencore's controlled industrial assets accounted for some 17 per cent. of the zinc concentrates marketed during the year ended 31 December 2010. The balance of metal and concentrate is sourced from third parties and associate industrial assets.

Glencore's main own sources of supply for copper metal are Mopani, Katanga and Pasar, and together Glencore's controlled industrial assets accounted for some 20 per cent. of the copper metal marketed during the year ended 31 December 2010. Glencore's main own sources of supply for the copper concentrates are Kazzinc and Cobar and, together, Glencore's controlled industrial assets accounted for some 25 per cent. of the copper concentrates marketed during the year ended 31 December 2010. The balance of metal and concentrate is sourced from third parties and associate industrial assets.

Glencore's main own sources of supply for lead metal are Kazzinc, Portovesme and AR Zinc and, together, Glencore's controlled industrial assets accounted for some 36 per cent. of the lead metal marketed during the year ended 31 December 2010. Glencore's main own sources of supply for the lead concentrates are Los Quenuales and Sinchi Wayra and, together, Glencore's controlled industrial assets accounted for some 9 per cent. of the lead concentrates marketed during the year ended 31 December 2010. The balance of metal and concentrate is sourced from third parties and associate industrial assets.

The zinc, copper and lead operations' large number of industrial assets provides Glencore with access to an integrated production and marketing system.

Customers

Across the zinc, copper and lead operations, there is a diversified customer base, including galvanisers, alloy producers, steel and brass mills, rod and wire producers and other fabricators, with the top ten customers by value representing around 25 per cent. of sales in the year ended 31 December 2010. Seven of the top ten customers in the year ended 31 December 2010 were also in the top ten customers in the year ended 31 December 2009. The concentrates market has fewer customers (smelters) than the refined metals market. The diversification is larger for customers than for suppliers, reflecting a greater number of end users for metals and concentrates relative to the number of mines, smelters and refineries which produce concentrates and metals, respectively. Glencore believes that the zinc, copper and lead operations generally enter into long-term agreements with customers in order to secure sales of metals and concentrates, with approximately 60 per cent. of sales volumes being sold under long-term agreements in the year ended 31 December 2010, though the trend is towards a larger proportion of spot contracts as these are more prevalent in India and China, which are growth markets.

In respect of the individual commodities:

- Glencore sells its zinc products to various industrial customers, with zinc used primarily in the construction and automotive industries. Glencore's top ten customers accounted for 36 per cent. of the zinc metal and 63 per cent. of the zinc concentrates sold during the year ended 31 December 2010;
- Glencore sells its copper products to various industrial customers. Glencore's top ten customers accounted for 42 per cent. of the copper metal and 75 per cent. of the copper concentrates sold during the year ended 31 December 2010; and
- Glencore sells its lead products predominantly to producers of lead acid batteries for the automotive industry and industrial capacitors. Glencore's top ten customers accounted for 53 per cent. of the lead metal and 77 per cent. of the lead concentrates sold during the year ended 31 December 2010.

Features of the market

The physical metal trades are based on an exchange price plus/minus a premium/discount. A highly liquid paper futures market exists for zinc, copper, lead and tin metals, which are traded on the LME (zinc, copper, lead and tin), the SHFE (copper and zinc) and the COMEX (copper). Silver and gold are traded on the LBMA and the COMEX. These exchanges allow Glencore's underlying commodity price exposures on physical transactions to be hedged, whether the price is based on an exchange price or a fixed price. If desired, and subject to group risk limits and policies, they also allow Glencore to gain exposure to price risk and spread positions through the use of long and short paper transactions, and to take advantage of arbitrage opportunities.

Concentrates are non-fungible products and, consequently, are not directly tradable on an exchange. Glencore hedges physical concentrate positions using future contracts for the estimated payable metal contained in the concentrate.

Logistics

The marketing team for zinc, copper and lead are supported by a traffic team of 48 people who are responsible for executing transactions following the negotiation of the key contractual terms and for managing metals along the supply chain through inventory, financing and transportation from source to end customers. The department also benefits from storage and blending facilities in Peru and has access to other warehousing facilities, including those at Glencore's industrial assets.

Although important, the freight component of price is not as critical for metals as for bulk cargoes and crude oil. All freight relating to the commodities marketed is chartered through third party freight brokers on competitive terms, taking into account Glencore's scale of activities, both on the spot market and through the longer-term contracts of affreightment.

Competitors

Glencore has few major marketing competitors for zinc, copper and lead, with Noble Group and Trafigura Group trading smaller zinc, copper and lead quantities as part of their core businesses, neither of which has significant production assets.

Alumina/aluminium commodity department (marketing activities, Metals and Minerals business segment)

Overview

The alumina/aluminium commodity department is involved in the marketing and processing of bauxite, alumina and primary aluminium. Through the sourcing and physical exchange of alumina and aluminium of different origins, the alumina/aluminium commodity department has been able to create a global position in its market.

Market

Glencore is a leading supplier in the global third party alumina market, with an estimated share of the addressable market of approximately 38 per cent., supplying a physical volume (excluding physical swaps) of 6.7 million MT and 5.8 million MT during the years ended 31 December 2010 and 31 December 2009, respectively.

Glencore is a leading physical supplier of third party aluminium, with an estimated share of the addressable market of approximately 22 per cent., marketing physical volumes of 3.9 million MT and 3.2 million MT during the years ended 31 December 2010 and 31 December 2009, respectively.

Suppliers

The alumina market is a wholesale market with only a limited number of suppliers and customers operating in the market. Glencore has a guaranteed supply source as it is involved in the production of alumina through its industrial assets. In addition, Glencore purchases alumina from many of the world's leading alumina producers, mostly under long-term contracts. A significant portion of Glencore's alumina supply is sourced from a few key suppliers with the top ten alumina suppliers accounting for approximately 78 per cent. of supply in the year ended 31 December 2010. In the year ended 31 December 2010, some 23 per cent. of alumina purchased originated from Glencore's stakes in industrial assets, namely Sherwin Alumina and UC Rusal. Glencore believes that it currently operates with a mixture of approximately 65 per cent. long-term and 35 per cent. short-term alumina contracts. Eight of the top ten suppliers in the year ended 31 December 2010 were under predominantly long-term contracts. Prices under alumina supply contracts are typically linked to the LME price of aluminium for long-term contracts and are fixed for short-term contracts.

Glencore's supply sources for aluminium are fairly concentrated as well, with its top ten suppliers accounting for some 74 per cent. of supply in the year ended 31 December 2010. Five of the top ten suppliers in the year ended 31 December 2010 were also top ten suppliers in the year ended 31 December 2009, reflecting a stable supplier base. Seven of the top ten suppliers in the year ended 31 December 2010 were under long-term contracts. Glencore's supply sources also include its industrial assets. In the year ended 31 December 2010, approximately 50 per cent. of aluminium purchased originated from Glencore's

partially owned industrial assets, UC Rusal and Century Aluminum. In the year ended 31 December 2010, Glencore believes that around 44 per cent. of Glencore's supplier contracts were short-term. However, these contracts are typically renegotiated so that the contract is replaced with a new one upon expiry. Glencore is focused on obtaining a larger proportion of its aluminium under long-term contracts.

Customers

Glencore's alumina customer base is diverse and geographically dispersed and includes Century Aluminum as well as many of the world's other major alumina consumers. The top ten alumina customers accounted for some 61 per cent. of the sales in the year ended 31 December 2010. Seven of the top ten customers in the year ended 31 December 2010 were also top ten customers in the year ended 31 December 2009, reflecting a stable alumina customer base. In the year ended 31 December 2010, approximately 5 per cent. of total sales of alumina were to associates. Glencore believes that approximately 59 per cent. of Glencore's alumina sales are made pursuant to long-term contracts under which (similarly to alumina purchase contracts) prices are linked to the LME price of aluminium for long-term contracts and are fixed for short-term contracts. Contracts are usually entered into on a "take or pay" arrangement, meaning volumes are fixed, which offsets Glencore's own risk of accepting similar terms from its suppliers.

Since there is a much larger market for aluminium than for alumina, Glencore's customer base for aluminium is somewhat broader than for alumina, with the top ten customers representing some 50 per cent. of the sales in the year ended 31 December 2010. The largest customers include most of the aluminium consuming industrial groups in the construction, packaging, transport and electronics industries. Aluminium customers can have multiple contracts with Glencore with different terms, contract durations and geographical locations and are typically priced on the LME price plus premium.

Features of the market

Alumina can only be stored for limited time periods in optimum conditions in order to maintain levels of quality. There is no derivatives exchange for alumina, which restricts the ability to hedge. As such, Glencore is unable to adjust its position through a deliverable paper market and the great majority of near-term alumina forward purchase and sale contracts are physically matched. Short-term contracts are mostly based on a fixed price and long-term contracts are normally priced as a percentage of LME aluminium prices. Many of the LME linked contracts have put/call features. Additionally, there are nascent efforts to establish an alumina index pricing system. Where possible, Glencore hedges its exposure by contracting on a back-to-back basis or taking hedges against LME aluminium prices.

Primary aluminium is mainly traded on the LME, allowing paper and physical marketing contracts to be entered into with reference to a market price. Aluminium is also traded on the SHFE. This allows positions to be hedged and marked to market, as well as providing a purchaser of last resort. The LME provides information on forward curves as well as a standardised contract that determines purity levels, delivery dates, weights and forms of the metal. Almost all of Glencore's physical aluminium transactions are priced based on the LME price plus/minus a premium/discount. These are hedged when originated or priced. The existence of the LME allows Glencore to enter into immediate and effective, price risk hedges against its positions in physical aluminium. The existence and use of LME approved warehouses allow marketers to manage supply and store the metal while they lock in future prices on the LME. If desired, and subject to group risk limits and policies, it also allows Glencore to gain exposure to price risk and spread positions through the use of long and short paper transactions.

Logistics

68 employees form the alumina/aluminium traffic team and are responsible for producing information to enable the marketers to make informed transactions as well as executing the transactions after the marketers have negotiated the key terms.

Competitors

Glencore has few major competitors trading in its addressable markets for alumina and aluminium; however, its competitors do market significant volumes of their own alumina and aluminium production. Alumina and aluminium production utilised by the aluminium smelters and downstream facilities of integrated companies such as Rio Tinto plc, Alcoa Inc. and Norsk Hydro ASA are outside Glencore's addressable markets, but are noteworthy as these volumes are very large and therefore may affect pricing and customer relationships within the addressable markets.

Ferroalloys/nickel/cobalt commodity department (marketing activities, Metals and Minerals business segment)

Overview

The ferroalloys/nickel/cobalt commodity department markets bulk ferroalloys (including ferrochrome and chrome ore, ferromanganese, siliconmanganese, manganese ore and ferrosilicon), noble ferroalloys (vanadium and molybdenum products), nickel, cobalt, steel and iron ore.

Market

Glencore has a significant presence in the market for ferrochrome, nickel and cobalt, with estimated shares of the addressable market of approximately 16 per cent., 14 per cent. and 23 per cent., respectively. Glencore is currently, and has for the last few years been, the largest physical supplier of ferrochrome and cobalt products.

Suppliers

Ferroalloys, nickel and cobalt products are sourced through some of the key industrial assets Glencore has stakes in, including Xstrata by way of long-term off-take, agency and distribution agreements as well as from third party suppliers. In the year ended 31 December 2010, the ferroalloys/nickel/cobalt department sourced approximately 61 per cent. of its products in this commodity department via its stakes in industrial assets (Murrin Murrin, Mopani, Mutanda and Katanga for nickel and cobalt) and off-take and agency agreements with Xstrata for nickel, ferronickel, cobalt, ferrochrome and vanadium.

Glencore's main source of supply for ferrochrome products is Xstrata, which supplied approximately 85 per cent. of the ferrochrome products marketed during the year ended 31 December 2010, under an exclusive agency agreement.

With regards to nickel, the top ten suppliers represented more than 95 per cent. of Glencore's total physical supplies by value in the year ended 31 December 2010. Nine of the top ten suppliers in the year ended 31 December 2010 were also in the top ten suppliers in the year ended 31 December 2009, reflecting long-term relationships. Seven of the top ten suppliers in the year ended 31 December 2010 were under long-term contracts. During the year ended 31 December 2010, Glencore's industrial assets (controlled and non-controlled) provided approximately 75 per cent. of the total nickel supply, largely from Murrin Murrin and Xstrata. Glencore believes that nickel supply arrangements are primarily under long-term contracts of three to five years, priced by reference to LME prices. Approximately 97 per cent. of the volumes purchased (in value terms) from the top ten nickel suppliers in the year ended 31 December 2010 are under long-term contracts.

Cobalt is purchased as either cobalt intermediates, concentrates or cobalt metal, which are sourced from different suppliers, including from companies which form part of Glencore's industrial assets. The top ten suppliers represented approximately 94 per cent. of purchases of cobalt in the year ended 31 December 2010. Seven of the top ten suppliers in the year ended 31 December 2010 were also in the top ten suppliers in the year ended 31 December 2009, reflecting long-term relationships. Approximately 65 per cent. of cobalt is supplied by Glencore's industrial assets. Glencore believes that almost all cobalt agreements are long-term off-take agreements of up to five years with prices typically agreed annually by reference to London Metals Bulletin prices. Approximately 92 per cent. of the volumes purchased (in value terms) from the top ten cobalt suppliers in the year ended 31 December 2010 are under long-term contracts.

Glencore has monitored the development of the iron ore market for a number of years, prior to entering the market and began to actively market the product in the year ended 31 December 2008, initially sourcing from small suppliers, then increasing its focus on supply from major miners in the years ended 31 December 2009 and 2010. Volumes sold increased significantly from 0.9 million MT in the year ended 31 December 2008 and to 4.8 million MT in the year ended 31 December 2009 to 9.3 million MT in the year ended 31 December 2010. The opportunity to trade on a spot price basis reflects demand/supply imbalances across the major miners and steel mills and related pricing mechanism preferences which have moved away from annual price agreements. All iron ore volumes are sourced from third parties under spot and long-term contracts with Glencore's main suppliers. On an aggregate basis, the top ten iron ore suppliers accounted for approximately 94 per cent. of the volumes purchased (in value terms). This high concentration is largely due to the limited numbers of iron ore suppliers globally.

Customers

Glencore's ferroalloys, nickel and cobalt customer base is geographically diverse and consists of large multinational European, American and Asian businesses across the carbon, stainless steel and other special steel industries. Most products are sold to end users, but a small portion are sold to intermediaries. Glencore has also recently developed its chrome, iron and manganese ore businesses, supplying mostly large ferroalloys smelters (chrome and manganese) and carbon steel mills (iron). Contracts for the bulk ores are both spot and long-term (typically one year) with prices negotiated based on prevailing market prices.

Glencore's customers for ferroalloys are typically large carbon steel, stainless steel and special steel mills. During the year ended 31 December 2010, the top ten customers represented some 50 per cent. of ferroalloys sales (approximately 85 per cent. of ferrochrome sales). Excluding iron ore and steel customers, eight of Glencore's top ten customers in the year ended 31 December 2010 were also in the top ten customers of Glencore in the year ended 31 December 2009. Contracts are usually one to three years in duration with pricing terms either linked to industry publication prices or negotiated on a quarterly basis.

Glencore markets a range of nickel products in ore, concentrates, matte forms and refined products, with its sales of refined products accounting for some 93 per cent. of total physical volumes supplied during the year ended 31 December 2010. The nickel customer base is well established, with the top ten customers representing approximately 49 per cent. of sales during the year ended 31 December 2010. Historically, the top customers have been European stainless steel producers, but recently Chinese stainless steel producers have become more important customers as the steel market has recovered more quickly in China than in Europe. In the year ended 31 December 2010, however, demand from European customers recovered, resulting in a mix of Chinese and European customers being the top customers. Glencore believes that, typically, sales are approximately 70 per cent. made under long-term arrangements of one to five years and 30 per cent. are made in the spot market. Apart from nickel ore, which has its own market prices due to the variability of the grade, all nickel related products are priced by reference to LME prices.

Glencore's customers for cobalt are typically large processors. Cobalt is sold in many forms, including ore, concentrates, intermediates, salts and metal. The top ten customers represented approximately 53 per cent. of sales in the year ended 31 December 2010. Cobalt contracts are approximately 12 months long on average, but can be up to five years, while contract pricing terms are set using the London Metals Bulletin price.

Features of the market

Ferroalloys, nickel and cobalt marketing operations principally involve marketing these commodities through physical, as opposed to paper, transactions.

An active futures market exists for nickel on the LME, which allows the marketing team to hedge sales and purchases for nickel products; typically, physical positions are fully hedged using futures on the LME.

Whilst the LME launched trading platforms for cobalt and molybdenum in February 2010, volumes are currently low, and these exchanges are therefore still relatively illiquid and, as a result, there is limited possibility to achieve effective paper hedging through a metals exchange. However, Glencore has developed and offers financial products, such as cash settled swaps, for cobalt and molybdenum as a means of managing the risk in respect of its physical exposures in these commodities.

In 2008 the LME and Singapore Exchange Ltd. each launched an exchange for iron ore. Volumes traded on these exchanges are currently low and, as such, these exchanges are relatively illiquid.

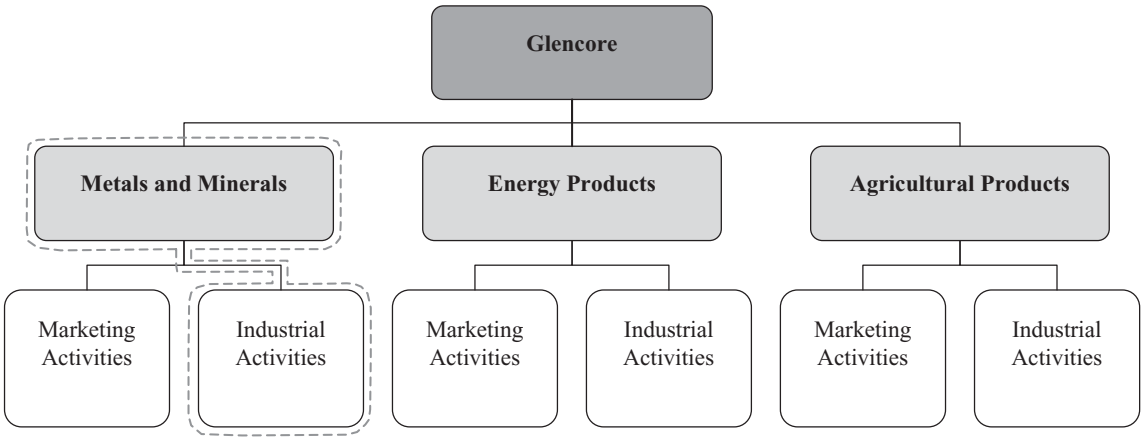
Logistics

Marketers of ferroalloys, nickel and cobalt are supported by a traffic team of 68 people who provide the marketers with data, such as prices for freight and logistics, before sales are agreed with customers. The traffic team also manage the logistics of product delivery once a deal has been agreed, where freight requirements are generally outsourced to third parties.

Competitors

Glencore has few major competitors trading in its addressable markets for ferroalloys, nickel and cobalt and the majority of its competitors compete primarily in upstream production, although some also have significant end product capabilities.

Industrial activities (Metals and Minerals business segment)



Zinc/copper/lead commodity department (industrial activities, Metals and Minerals business segment)

Overview

The table below summarises information about the key zinc/copper/lead producing industrial assets as at 31 December 2010:

Company	Country	Commodity	Current annual production capacity	Glencore's ownership interest	Remaining ownership interest	Any contractual relationship with Glencore
Controlled:						
Kazzinc	Kazakhstan	Zinc metal Lead metal Copper concentrates Copper metal Gold Silver	300k MT 130k MT[2] 240k MT[3] 70k MT 1.5 million toz 45 million toz	50.7%	49.3% privately held[1]	Supply and purchase agreements
Katanga	DRC	Copper metal Cobalt	130k MT[4] 5.5k MT[4]	74.4%	25.6% publicly traded on Toronto Stock Exchange	Purchase agreements
Mopani	Zambia	Copper metal Cobalt	300k MT 2.8k MT	73.1%	16.9% First Quantum Minerals Ltd., 10% ZCCM	Supply and purchase agreements
AR Zinc	Argentina	Zinc metal Lead metal	44k MT 14k MT	100%	—	Purchase agreements
Cobar	Australia	Copper concentrates	180k MT	100%	—	Purchase agreements
Los Quenuales	Peru	Zinc concentrates Lead concentrates	330k MT 40k MT	97.1%	2.9% indirectly listed on Lima Stock Exchange	Purchase agreements
Pasar	Philippines	Copper metal	215k MT	78.2%	21.8% local investors	Supply and purchase agreements
Portovesme	Italy	Zinc metal Lead metal Waelz oxide	120k MT 80k MT 60k MT	100%	—	Supply and purchase agreements
Punitaqui	Chile	Copper concentrates[5]	40k MT	100%	—	Purchase agreements
Sinchi Wayra	Bolivia	Zinc concentrates Lead concentrates Tin concentrates	205k MT 15k MT 6k MT	100%	—	Purchase agreements
Non-controlled:						
Xstrata	UK/ Switzerland	Zinc metal Lead metal Copper metal	1,061k MT 487k MT 1,676k MT	34.5%	65.5% publicly traded on London Stock Exchange and SIX	Purchase agreements, agency agreements, marketing agreements, distribution agreements
Mutanda[6]	DRC	Copper metal Cobalt	110k MT by 2012 23k MT by 2012[8]	40%	60% privately held[7]	Purchase agreements
Kansuki	DRC	Copper metal Cobalt	N/A[9]	37.5%	62.5% privately held[10]	Purchase agreements
Nyrstar	Belgium	Zinc metal Lead metal	1,120k MT 235k MT	7.8%	92.2% publicly traded on Euronext Brussels	Supply and purchase agreements
Perkoa[11]	Burkina Faso	Zinc concentrates	170k DMT[12]	50.1%	39.9% held by Blackthorn, 10% Burkina Faso government	Purchase agreements
Recylex	France	Lead metal Battery recycling EAF dust recycling	135k MT 10 million units 180k MT	32.2%	67.8% publicly traded on Euronext Paris	Purchase agreements

Company	Country	Commodity	Current annual production capacity	Glencore's ownership interest	Remaining ownership interest	Any contractual relationship with Glencore
Volcan	Peru	Zinc concentrates Lead concentrates	655k MT 123k MT	4.1%	95.9% publicly traded on the Lima Stock Exchange	Purchase agreements
Polymet	Canada	Copper concentrates Nickel concentrates	N/A	6.3%	93.7% publicly listed on NYSE and TSX	Purchase agreements

Notes:

(1) Glencore has agreed with Verny to acquire additional stakes in Kazzinc thereby increasing its ownership from 50.7 per cent. to 93.0 per cent. See Section X: "Additional Information" for further details of these purchases and the terms of the Kazzinc SPAs.

(2) After commissioning of its lead smelter capacity will increase to 168k MT.

(3) Copper metal production to replace copper concentrate production with new smelter.

(4) Expansion to 310k MT of copper metal, 8k MT of cobalt and 22k MT of cobalt contained in cobalt hydroxide by 2015.

(5) Operation forecast for 2011.

(6) Mutanda is not a controlled asset as Glencore has only a 40 per cent. stake; however, Glencore is the operator.

(7) 20 per cent. interest in Mutanda Mining Sprl was recently acquired by Rowny Assets Limited (an entity associated with Dan Gertler) from Gécamines.

(8) Cobalt contained in cobalt hydroxide.

(9) Exploration stage.

(10) 25 per cent interest in Kansuki was recently acquired by Biko Invest Corp (an entity associated with Dan Gertler) from Gécamines.

(11) Ownership interest on completion of earn-in by 2012.

(12) Operation forecast for first half 2013.

Financial information

The table below sets out selected financial information on the controlled zinc/copper/lead industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010. The information in this table has been extracted without material adjustment from Glencore's accounting books and records, which are unaudited:

	2008	2009	2010
	(U.S.$ million) *(Unaudited)*		
ZINC			
Kazzinc			
Revenue	1,384	1,330	1,855
Adjusted EBITDA pre-exceptional items[1]	473	637	815
Adjusted EBIT pre-exceptional items[1]	357	490	579
Statutory tax rate	30%	20%	20%
Capex	568	367	350
Other Zinc			
Revenue	1,085	665	901
Adjusted EBITDA pre-exceptional items[1]	97	62	225
Adjusted EBIT pre-exceptional items[1]	(34)	(28)	115
Capex	166	48	110
Total Zinc			
Revenue	2,469	1,995	2,756
Adjusted EBITDA pre-exceptional items[1]	570	699	1,040
Adjusted EBIT pre-exceptional items[1]	323	462	694

Note:

(1) Excludes share of income from associates and dividends.

	2008	2009	2010
	(U.S.$ million) *(Unaudited)*		
COPPER			
Katanga			
Revenue	0	178	496
Adjusted EBITDA pre-exceptional items[(1)]	0	48	168
Adjusted EBIT pre-exceptional items[(1)]	0	39	109
Statutory tax rate	0	30%	30%
Capex	0	62	221
Mopani			
Revenue	865	594	863
Adjusted EBITDA pre-exceptional items[(1)]	94	118	218
Adjusted EBIT pre-exceptional items[(1)]	44	(21)	68
Statutory tax rate	30%	30%	30%
Capex	137	58	130
Other Copper			
Revenue	1,874	1,559	2,072
Adjusted EBITDA pre-exceptional items[(1)]	288	205	214
Adjusted EBIT pre-exceptional items[(1)]	256	175	179
Capex	40	43	92
Total Copper			
Revenue	2,739	2,331	3,431
Adjusted EBITDA pre-exceptional items[(1)]	382	371	600
Adjusted EBIT pre-exceptional items[(1)]	300	193	356

Note:

(1) Excludes share of income from associates and dividends.

Production

The table below sets out the production of the controlled zinc/copper/lead assets for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

	Year ended 31 December								
	2008			2009			2010		
	Production	Production using feed from own sources	Production using feed from third party sources	Production	Production using feed from own sources	Production using feed from third party sources	Production	Production using feed from own sources	Producing using feed from third party sources
	('000 MT)	*('000 MT)*	*('000 MT)*	*('000 MT)*	*('000 MT)*	*('000 MT)*	*('000 MT)*	*('000 MT)*	*('000 MT)*
Kazzinc									
Zinc metal	299	262	38	301	227	74	301	239	62
Lead metal	90	43	47	79	46	33	101	33	68
Copper metal[1]	56	56	0	59	57	2	50	48	2
Gold ('000 toz)	183	179	4	238	233	6	348	326	21
Silver ('000 toz)	7,618	5,313	2,305	6,286	5,335	951	6,731	5,182	1,549
Katanga									
Copper metal	22.1	22.1	0.0	42.0	42.0	0.0	52.2	52.2	0.0
Copper concentrates	0.0	0.0	0.0	1.8	1.8	0.0	6.1	6.1	0.0
Cobalt	0.7	0.7	0.0	2.5	2.5	0.0	3.4	3.4	0.0
Mopani									
Copper metal	165.4	110.3	55.2	184.7	98.3	86.4	197.4	94.4	103.0
Cobalt	1.5	1.5	0.0	1.3	1.3	0.0	1.1	0.8	0.3
AR Zinc									
Zinc metal	40	26	15	32	28	4	41	28	13
Lead metal	13	13	0	13	13	0	14	14	0
Cobar									
Copper concentrates	155	155	0	182	182	0	179	179	0
Los Quenuales									
Zinc concentrates	377	377	0	90	90	0	237	237	0
Lead concentrates	45	45	0	25	25	0	35	35	0
Pasar									
Copper metal	175	0	175	178	0	178	176	0	176
Portovesme									
Zinc metal	107	0	107	104	0	104	104	0	104
Lead metal	76	0	76	29	0	29	0	0	0
Sinchi Wayra									
Zinc concentrates	188	161	27	137	133	4	153	153	0
Lead concentrates	15	13	2	8.7	8.5	0.2	11	11	0
Tin concentrates	5	5	0	4	4	0	4	4	0
Total production									
Zinc concentrates	565	538	27	227	223	4	390	390	—
Zinc metal	446	288	160	437	255	182	446	267	179
Lead concentrates	60	58	2	34	34	—	46	46	—
Lead metal	179	56	123	121	59	62	115	47	68
Copper concentrates	155	155	—	184	184	—	185	185	—
Copper metal	419	188	230	464	197	266	476	195	281
Cobalt	2.2	2.2	—	3.8	3.8	—	4.5	4.2	0.3
Tin concentrates	5	5	—	4	4	—	4	4	—
Gold ('000 toz)	183	179	4	238	233	6	348	326	21
Silver ('000 toz)	7,618	5,313	2,305	6,286	5,335	951	6,731	5,182	1,549

(1) Copper contained is copper concentrates and blister copper.

Reserves and resources

The table below sets out the total mine reserves and resources summary for the zinc/copper/lead industrial assets:

Kazzinc[1][2]			**Reserves**			**Resources**			
			Proved	**Probable**	**Total**	**Measured**	**Indicated**	**Inferred**	**Total**
OPERATING MINES									
Vasilkovskoje									
	Ore	’000 MT	33,300	90,700	124,000	45,230	141,560	99,080	285,870
	Gold (Au)	Content, g/t	1.95	1.94	1.94	1.75	1.72	1.77	1.74
	Gold (Au)	Amount, ounces	2,088	5,657	7,745	2,551	7,840	5,650	16,041
Maleevsky									
	Ore	’000 MT	5,040	7,060	12,100	12,920	11,030	4,870	28,830
	Gold (Au)	Content, g/t	0.56	0.51	0.53	0.62	0.56	0.25	0.53
	Silver (Ag)	Content, g/t	68.13	56.23	61.19	77.74	64.82	47.79	67.73
	Copper (Cu)	Content, %	1.92	1.69	1.79	2.39	1.95	0.97	1.98
	Lead (Pb)	Content, %	1.00	1.04	1.02	1.13	1.15	1.58	1.21
	Zinc (Zn)	Content, %	6.46	6.29	6.36	6.92	6.82	4.99	6.56
Ridder-Sokolny									
	Ore	’000 MT	8,950	12,050	21,000	30,210	67,910	6,640	104,760
	Gold (Au)	Content, g/t	0.91	1.03	0.98	1.11	1.55	0.83	1.38
	Silver (Ag)	Content, g/t	12.85	8.44	10.32	11.73	10.74	9.09	10.92
	Copper (Cu)	Content, %	0.43	0.22	0.31	0.64	0.38	0.29	0.45
	Lead (Pb)	Content, %	0.32	0.37	0.35	0.40	0.40	0.59	0.41
	Zinc (Zn)	Content, %	0.73	0.7	0.71	0.91	0.95	1.12	0.95
Tishinsky									
	Ore	’000 MT	18,890	4,930	23,810	21,230	7,010	5,190	33,430
	Gold (Au)	Content, g/t	0.54	0.47	0.53	0.60	0.46	0.33	0.53
	Silver (Ag)	Content, g/t	8.12	9.36	8.38	9.02	9.75	11.94	9.87
	Copper (Cu)	Content, %	0.52	0.40	0.50	0.59	0.45	0.55	0.55
	Lead (Pb)	Content, %	0.91	0.88	0.90	1.00	0.95	1.36	1.04
	Zinc (Zn)	Content, %	4.22	4.13	4.20	4.71	4.35	4.46	4.60
Staroye Tailings Dam									
	Ore	’000 MT		790	790		820	5,900	6,720
	Gold (Au)	Content, g/t		2.00	2.00		2.01	0.91	1.04
	Silver (Ag)	Content, g/t		18.69	18.69		18.78	11.16	12.09
	Copper (Cu)	Content, %		0.05	0.05		0.05	0.04	0.04
	Lead (Pb)	Content, %		0.48	0.48		0.48	0.30	0.32
	Zinc (Zn)	Content, %		1.10	1.10		1.11	0.63	0.69
Shaimerden Stockpiles									
	Ore	’000 MT		2,480	2,480		2,480		2,480
	Zinc (Zn)	Content, %		21.71	21.71		21.71		21.71
Novoshirokinskoe									
	Ore	’000 MT	2,440	4,430	6,870	2,430	4,640	1,510	8,580
	Gold (Au)	Content, g/t	3.89	3.89	3.89	4.43	4.30	2.08	3.94
	Silver (Ag)	Content, g/t	77.0	84.3	81.70	87.74	94.82	57.02	86.18
	Lead (Pb)	Content, %	2.98	2.69	2.79	3.43	3.07	2.44	3.06
	Zinc (Zn)	Content, %	1.28	0.99	1.09	1.47	1.15	1.81	1.36
DEVELOPMENT PROJECTS									
Dolinnoe									
	Ore	’000 MT	3,660	960	4,620	5,040	2,700	6,907	14,647
	Gold (Au)	Content, g/t	3.93	2.38	3.61	3.85	2.32	1.59	2.50
	Silver (Ag)	Content, g/t	53.76	29.82	48.77	50.47	28.05	15.88	30.03
	Copper (Cu)	Content, %	0.20	0.14	0.19	0.20	0.14	0.12	0.15
	Lead (Pb)	Content, %	0.75	0.50	0.70	0.74	0.48	0.48	0.57
	Zinc (Zn)	Content, %	1.41	1.02	1.33	1.39	1.00	0.86	1.07
Obruchevskoe									
	Ore	’000 MT	890	3,250	4,140	1,154	7,783	5,500	14,437
	Gold (Au)	Content, g/t	1.73	0.90	1.08	1.62	0.67	0.50	0.68
	Silver (Ag)	Content, g/t	42.80	33.21	35.26	40.68	25.36	24.97	26.44
	Copper (Cu)	Content, %	0.81	0.83	0.82	0.88	0.73	0.41	0.62
	Lead (Pb)	Content, %	4.27	2.66	3.01	4.02	1.78	0.64	1.53
	Zinc (Zn)	Content, %	8.98	6.50	7.03	8.87	4.64	1.75	3.87

Kazzinc[1][2]			Reserves			Resources			
			Proved	Probable	Total	Measured	Indicated	Inferred	Total
Chashinskoye Tailing Dam									
	Ore	’000 MT		55,530	55,530		57,800	30,000	87,800
	Gold (Au)	Content, g/t		0.7	0.7		0.67	0.50	0.61
	Silver (Ag)	Content, g/t		5.37	5.37		5.16	4.57	4.96
	Copper (Cu)	Content, %		0.05	0.05		0.05	0.06	0.05
	Lead (Pb)	Content, %		0.16	0.16		0.15	0.19	0.16
	Zinc (Zn)	Content, %		0.40	0.40		0.38	0.45	0.40
Tishinsky Tailing Dam									
	Ore	’000 MT		320	320		330	40	380
	Gold (Au)	Content, g/t		0.33	0.33		0.33	0.58	0.36
	Silver (Ag)	Content, g/t		9.89	9.89		9.96	8.73	9.79
	Copper (Cu)	Content, %		0.22	0.22		0.22	0.23	0.22
	Lead (Pb)	Content, %		0.76	0.76		0.76	0.56	0.74
	Zinc (Zn)	Content, %		2.44	2.44		2.46	2.64	2.48

Notes:

(1) As at 1 January 2011. The information in the table above, in relation to mineral reserves and resources, is in compliance with the JORC Code and has been extracted without material adjustment from the Kazzinc Report in Section XIV: “Independent Technical Reports”.

(2) Remaining mine life: different for each mine, ranging from eight to 21 years. Expiry date of relevant mining/concession licences: different for each mine, ranging from 19 May 2013 to 7 November 2030.

Competent Persons: the mineral reserves and resources estimates set out above were reviewed and approved by Phil Newall of WAI. The reserves and resources estimates have been prepared in accordance with the JORC Code. Mr Newall is a Competent Person as defined by JORC and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking.

Katanga[1][2]	Commodity	Reserves			Resources			
		Proved	Probable	Total	Measured	Indicated	Inferred	Total
Kamoto	Ore (’000 MT)	14,589	19,400	33,989	30,700	35,700	10,600	77,000
	Copper (%)	3.47	3.70	3.60	4.54	4.69	5.11	4.69
	Cobalt (%)	0.51	0.53	0.52	0.54	0.60	0.59	0.57
T17	Ore (’000 MT)	0	1,470	1,470	0	8,500	15,300	23,800
	Copper (%)	0	2.61	2.61	0	2.75	1.91	2.21
	Cobalt (%)	0	0.46	0.46	0	0.87	0.61	0.70
Mashamba East . .	Ore (’000 MT)	0	5,914	5,914	0	75,000	65,300	140,300
	Copper (%)	0	3.00	3.00	0	1.80	0.76	1.32
	Cobalt (%)	0	0.37	0.37	0	0.38	0.10	0.25
KOV	Ore (’000 MT)	0	55,666	55,666	0	123,900	71,200	195,100
	Copper (%)	0	4.73	4.73	0	5.37	3.56	4.71
	Cobalt (%)	0	0.45	0.45	0	0.40	0.32	0.37
Kananga	Ore (’000 MT)	0	0	0	0	4,100	4,000	8,100
	Copper (%)	0	0	0	0	1.61	2.00	1.80
	Cobalt (%)	0	0	0	0	0.79	0.98	0.88
Tilwezembe	Ore (’000 MT)	0	0	0	0	9,500	13,800	23,300
	Copper (%)	0	0	0	0	1.89	1.75	1.81
	Cobalt (%)	0	0	0	0	0.60	0.60	0.60

Notes:

(1) As at 31 December 2010. The information in the table above, in relation to mineral reserves and resources, is in compliance with the JORC Code and has been extracted without material adjustment from the Katanga Report in Section XIV: “Independent Technical Reports”.

(2) Remaining mine life: in excess of 25 years. Expiry date of relevant mining/concession licences: 7 May 2022 for the extension of Katanga and 3 April 2024 for all remaining operations.

Competent Persons: the mineral reserves and resources estimates set out above were reviewed and approved by Willem van der Schyff of Golders. The reserve and resources estimates have been prepared in accordance with the JORC Code. Mr Van der Schyff is a Competent Person as defined by JORC and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking.

Mopani[(1)(2)]	Commodity	Reserves			Resources			
		Proved	Probable	Total	Measured	Indicated	Inferred	Total
Nkana Sulphides . . .	Ore ('000 MT)	92,300	15,900	108,200	136,600	34,300	35,300	206,200
	Copper (%)	1.84	1.80	1.83	1.94	1.79	1.65	1.86
	Cobalt (%)	0.10	0.23	0.12	0.10	0.14	0.14	0.12
Nkana Oxides	Ore ('000 MT)	1,800	800	2,600	8,400	210	80	8,690
	Copper (%)	4.02	2.84	3.66	2.93	4.12	3.31	2.96
	Cobalt (%)	0.14	0.10	0.13	0.11	0.16	0.14	0.11
Mufulira	Ore ('000 MT)	8,100	2,500	10,600	28,200	9,900	37,600	75,700
	Copper (%)	2.51	2.96	2.62	2.18	2.62	2.62	2.46

Notes:

(1) As at 31 October 2010. The information in the table above, in relation to mineral reserves and resources, is in compliance with the JORC Code and has been extracted without material adjustment from the Mopani Report in Section XIV: "Independent Technical Reports".

(2) Remaining mine life: 25 years for Nkana and 11 years for Mufulira. Expiry date of relevant mining/concession licences: 31 March 2025 for both of these mines.

Competent Persons: the mineral reserve and resource estimates set out above were reviewed and approved by Willem van der Schyff of Golders. The reserves and resources estimates have been prepared in accordance with the JORC Code. Mr Van der Schyff is a Competent Person as defined by JORC and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking.

AR Zinc[(1)(2)]	Commodity	Reserves			Resources			
		Proved	Probable	Total	Measured	Indicated	Inferred	Total
Aguilar	Ore ('000 MT)	1,574	1,541	3,115	2,132	3,132	1,856	7,120
	Zinc (%)	8.49	4.91	6.72	7.59	3.89	7.52	5.95
	Lead (%)	8.28	5.49	6.90	6.85	3.91	6.66	5.51
	Silver (toz/MT)	6.00	3.71	4.87	5.04	2.80	4.33	3.87

Notes:

(1) As at 31 December 2010.

(2) Remaining mine life: approximately four years based on reserves and ten years based on resources. AR Zinc plans to continue exploration with the aim of extending the life of mine. Expiry date of relevant mining/concession licences: permanent.

Competent Person: the mineral reserves and resources estimates set out above were reviewed and approved by Glencore Competent Person, Chris Emerson, and have been prepared in accordance with the JORC Code. Mr Emerson is a Competent Person as defined by the JORC Code. Mr Emerson is a fellow of the Geological Society of London and a member of AusIMM—The Minerals Institute and has more than ten years experience in underground pollymetallic deposits, predominantly in Latin America.

Cobar[(1)(2)]	Commodity	Reserves			Resources			
		Proved	Probable	Total	Measured	Indicated	Inferred	Total
Cobar	Ore ('000 MT)	1,370	4,879	6,249	1,992	3,775	6,147	11,914
	Copper (%)	4.17	4.95	4.8	5.80	6.30	5.90	6.00
	Silver (g/t)	15	19	18	20	24	20	21

Notes:

(1) As at 31 December 2010.

(2) Remaining mine life: current expected life of mine is approximately five years based on reserves and approximately 11 years based on resources, although Cobar has previously been able to extend its expected life of mine through exploratory drilling in the area covered by its concession. Expiry date of relevant mining/concession licences: 5 December 2028.

Competent Person: the mineral reserves estimates set out above were reviewed and approved by Glencore Competent Person, Tom Simpson. The mineral resources estimates set out above were reviewed and approved by Glencore Competent Person, Jason Hosken. The mineral reserves and resources estimate have been prepared in accordance with the JORC Code. Mr Simpson has been a member of AusIMM—the Minerals Institute for more than 20 years and has more than 15 years' of experience in underground pollymetallic deposits in Australia. Mr Hosken has been a member of AusIMM-the Minerals Institute for more than 12 years and has more than 16 years of experience in underground pollymetallic deposits in Australia.

Los Quenuales[1][2]	Commodity	Reserves			Resources			
		Proved	Probable	Total	Measured	Indicated	Inferred	Total
Iscaycruz	Ore ('000 MT)	2,820	1,250	4,070	3,661	4,705	7,379	15,746
	Zinc (%)	11.68	8.03	10.56	13.33	7.12	3.87	7.04
	Lead (%)	0.79	0.34	0.65	1.02	0.68	0.33	0.59
	Silver (toz/MT)	0.55	0.42	0.51	0.76	1.01	0.74	0.83
Yauliyacu	Ore ('000 MT)	1,265	2,096	3,360	5,675	7,617	14,468	27,760
	Zinc (%)	2.2	2.2	2.17	2.58	2.66	3.48	3.07
	Lead (%)	0.98	1.10	1.06	0.43	0.83	1.62	1.16
	Silver (toz/MT)	3.33	4.03	3.77	2.11	3.80	7.14	5.20

Notes:

(1) As at 31 December 2010.

(2) Remaining mine life: the expected life of Iscaycruz is three years based on reserves and ten years based on resources. The expected life of Yauliyacu is two years based on reserves and 19 years based on resources. Expiry date of relevant mining/concession licences: permanent.

Competent Person: the mineral reserves and resources estimates set out above were reviewed and approved by Glencore Competent Person, Chris Emerson, and have been prepared in accordance with the JORC Code. Mr Emerson is a Competent Person as defined by the JORC Code. Mr Emerson is a fellow of the Geological Society of London and a member of AusIMM—the Minerals Institute and has more than ten years' experience in underground pollymetallic deposits in Latin America.

Sinchi Wayra[1][2]	Commodity	Reserves			Resources			
		Proved	Probable	Total	Measured	Indicated	Inferred	Total
Bolivar	Ore ('000 MT)	195	252	447	218	1,052	2,530	3,799
	Zinc (%)	11.40	10.69	11.00	13.52	12.24	10.28	11.01
	Lead (%)	1.43	1.20	1.30	1.69	1.45	0.83	1.05
	Silver (toz/MT)	7.61	9.61	8.73	9.30	13.37	10.45	11.19
Porco	Ore ('000 MT)	553	240	793	443	851	992	2,286
	Zinc (%)	10.35	10.89	10.51	12.75	12.12	10.43	11.51
	Lead (%)	0.71	0.61	0.68	0.89	0.83	1.11	0.96
	Silver (toz/MT)	4.14	4.46	4.24	5.30	4.82	4.42	4.74
Colquiri	Ore ('000 MT)	859	714	1,573	768	1,682	1,462	3,911
	Zinc (%)	8.41	7.75	8.11	10.10	9.31	8.60	9.20
	Tin (%)	1.59	1.35	1.48	1.92	1.84	1.94	1.89
Poopo	Ore ('000 MT)	127	70	197	113	272	844	1,229
	Zinc (%)	8.80	9.41	9.01	10.58	10.48	9.24	9.64
	Lead (%)	0.48	0.73	0.57	0.57	0.89	0.86	0.84
	Silver (toz/MT)	4.99	6.62	5.57	6.02	8.68	9.00	8.66
Caballo Blanco	Ore ('000 MT)	60	337	396	55	808	210	1,072
	Zinc (%)	12.10	9.52	9.91	15.04	12.30	12.88	12.55
	Lead (%)	0.70	2.38	2.13	0.82	2.99	2.95	2.87
	Silver (toz/MT)	3.04	6.94	6.35	3.66	8.64	8.60	8.38

Notes:

(1) As at 31 December 2010.

(2) Remaining mine life: the expected life of the mines as a group, considering current production capacities, is an average of two years based on reserves and seven years based on resources. Expiry date of relevant mining/concession licenses: different for each mine, ranging from 30 June 2014 to 16 January 2027 in respect of Porco, Colquiri and Poopo and permanent in respect of Bolivar and Caballo Blanco.

Competent Person: the mineral reserves and resources estimates set out above were reviewed and approved by Glencore Competent Person, Chris Emerson, and have been prepared in accordance with the JORC Code. Mr Emerson is a Competent Person as defined by the JORC Code. Mr Emerson is a fellow of the Geological Society of London and a member of AusIMM—The Minerals Institute and has more than ten years' experience in underground pollymetallic deposits, predominantly in Latin America.

Mutanda[1]	Commodity	Resources			
		Measured	Indicated	Inferred	Total
Central orebody	Ore ('000 MT)	7,800	5,300	7,600	20,700
	Copper (%)	1.62	1.16	0.95	1.28
	Cobalt (%)	0.81	0.67	0.91	0.81
East orebody	Ore ('000 MT)	29,000	18,400	164,600	212,000
	Copper (%)	2.67	1.65	1.03	1.34
	Cobalt (%)	1.13	0.87	0.45	0.60
Central North West orebody	Ore ('000 MT)	66,800	20	—	66,820
	Copper (%)	2.10	0.17	—	2.10
	Cobalt (%)	0.55	0.05	—	0.55
Total	Ore ('000 MT)	103,600	23,720	172,200	299,520
	Copper (%)	2.22	1.54	1.03	1.48
	Cobalt (%)	0.73	0.82	0.47	0.59

Note:

(1) As at 31 December 2010. The information in the table above in relation to mineral reserves and resources is in compliance with the JORC Code and has been extracted without material adjustment from the Mutanda Report in Section XIV: "Independent Technical Reports".

Competent Persons: the mineral reserves and resources estimates set out above were reviewed and approved by Willem van der Schyff of Golders. The reserves and resources estimates have been prepared in accordance with the JORC Code. Mr Van der Schyff is a Competent Person as defined by JORC and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking.

Mutanda[1][2]	Commodity	Reserves		
		Proved	Probable	Total
Mutanda pits	Ore ('000 tonnes)	47,176	6,570	53,746
	Copper (%)	3.4	3.1	3.4
	Cobalt (%)	0.9	1.2	0.9
Stockpiles	Ore ('000 tonnes)	2,227	—	2,227
	Copper (%)	3.4	—	3.4
	Cobalt (%)	2.3	—	2.3
Total	Ore ('000 tonnes)	49,403	6,570	55,973
	Copper (%)	3.4	3.1	3.4
	Cobalt (%)	1.0	1.2	1.0

Notes:

(1) As at 31 December 2010. The information in the table above in relation to mineral reserves and resources is in compliance with the JORC Code and has been extracted without material adjustment from the Mutanda Report in Section XIV: "Independent Technical Reports".

(2) Remaining mine life: 20 years. Expiry date of relevant mining/concession licenses: 26 May 2022 for Mutanda. This is renewable in accordance with the DRC mining code for periods of 15 years.

Competent Persons: the mineral reserves and resources estimates set out above were reviewed and approved by Willem van der Schyff of Golders. The reserves and resources estimates have been prepared in accordance with the JORC Code. Mr Van der Schyff is a Competent Person as defined by JORC and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking.

Kansuki[1][2]	Commodity	Resources			
		Measured	Indicated	Inferred	Total
Area 3	Ore ('000 MT)	16,700	400	0	17,100
	Copper (%)	1.72	0.93	0.82	1.7
	Cobalt (%)	0.17	0.14	0.35	0.17
Area 1	Ore ('000 MT)	—	33,600	—	33,600
	Copper (%)	—	1.08	—	1.08
	Cobalt (%)	—	0.38	—	0.38
Total	Ore ('000 MT)	16,700	33,900	0	50,700
	Copper (%)	1.72	1.08	0.82	1.29
	Cobalt (%)	0.17	0.38	0.35	0.31

Notes:

(1) As at 31 December 2010. The mineral resource estimates set out above were reviewed and approved by Willem Van der Schyff of Golders. The resource estimates have been prepared in accordance with the JORC Code. Mr Van der Schyff is a Competent Person as defined by JORC and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking.

(2) Expiry date of relevant mining/concession licences: 5 May 2022. This is renewable in accordance with the DRC mining code for periods of 15 years.

KAZZINC:

Glencore owns 50.7 per cent. of Kazzinc, a fully integrated zinc producer with significant copper, precious metals and lead resources in Kazakhstan. The remainder of the business is currently owned by Verny Capital JSC (48.73 per cent.), a Kazakh investment fund unrelated to Glencore, with certain small shareholders accounting for the remaining 0.58 per cent.

Glencore has agreed with Verny to acquire additional stakes in Kazzinc. These purchases will increase Glencore's ownership from 50.7 per cent. to 93.0 per cent. for a total transaction consideration of U.S.$3.2 billion. Subject to satisfaction of certain conditions, which include receipt of applicable regulatory approvals and the occurrence of UK Admission, consideration for these purchases will be settled through the issuance of U.S.$1 billion of Ordinary Shares at the Offer Price (such issuance is expected to occur at the earlier of UK Admission and satisfaction of applicable conditions precedent) and U.S.$2.2 billion in cash (to be paid in tranches between October and December 2011). Assuming that the Offer Price is set at the mid-point of the Offer Price Range and the Over-Allotment Option is not exercised, the issuance of U.S.$1 billion of Ordinary Shares is expected to result in Verny holding 1.6 per cent. of the Ordinary Shares in issue following the Global Offer. The acquisition of these additional stakes is expected to be completed by the end of December 2011. The terms of the acquisition have been negotiated on an arm's length basis and the price and structuring of the consideration in respect of these purchases is based on Glencore's detailed valuation of Kazzinc. In addition, Glencore's stake in Kazzinc may be further increased to 99.4 per cent. through the exercise of a put or call option in respect of Verny Investments' remaining 6.4 per cent. interest in Kazzinc, which is conditional on amongst other things, an initial public offering of Kazzinc's gold assets. See Section X: "Additional Information" for further details of these purchases and the terms of the Kazzinc SPAs.

Kazzinc owns three major polymetallic facilities, Zyrianovsk, Ridder and Ust-Kamenogorsk, as well as a gold mining operation, VasGold in Kokshetau and 48.3 per cent. interest in the Novoshirokinskoe gold mine in Russia. Kazzinc's major operations are located primarily in Eastern Kazakhstan, spread over seven towns and employing approximately 24,300 staff, including 2,284 VasGold employees. Kazzinc in total operates eight mines, four concentrators, two zinc smelters, a gold recovery plant, a copper smelter (which is under construction, with planned cold commissioning in the second quarter of 2011), a lead smelter (which is being significantly upgraded) and a precious metals refinery. Kazzinc also owns and operates a variety of auxiliary units which support its mining, smelting and refining operations, including:

- a long-term concession over the Bukhtarma Hydro-Electric Power Station which provides more than 80 per cent. of Kazzinc's electricity needs either directly through the company's own power lines or through swapping of energy production from the plant for electricity from the relevant local grids;
- Kazzinc-Mash, an industrial entity which produces a wide variety of parts and machinery related to mining and metallurgy, providing Kazzinc with necessary spare parts and customised mechanical solutions; and

- a transportation division with more than 100 kilometres of rail track, 1,000 rail tank cars and open-top wagons, 29 locomotives and 700 vehicles.

Zyrianovsk:

The Zyrianovsk mining and concentrating complex mines and processes polymetallic ores and produces zinc, copper, lead and gravity gold concentrates and copper sulphate reagent. The complex consists of three assets:

- Maleevsky mine: The Maleevsky mine is Kazzinc's largest underground operation, accounting for the majority of Kazzinc's zinc and copper production. The mine was commissioned in June 2000 and had an initial production rate of 1.5 million MT of ore per annum, which was expanded in 2001 to its current level of 2.25 million MT per annum. In the year ended 31 December 2010, ore mined at Maleevsky contained more than 50 per cent. of total zinc produced from Kazzinc's own mines and accounted for approximately three quarters of total Kazzinc copper concentrate production. Ore is transported from the Maleevsky mine to the Zyrianovsk concentrator by truck.
- Grekhovsky mine: The Grekhovsky mine is a small underground mining operation (the Aleksandrovsky area is the only operational part of the mine) producing 70k MT of primarily copper ore per annum, which is transported to the Zyrianovsk concentrator. The majority of the reserves at Grekhovsky have now been mined and reserves are expected to be depleted by the year ending 31 December 2013 following additional development work to expand underground operations to lower levels.
- Zyrianovsk concentrator: The Zyrianovsk concentrator primarily treats ore from the Maleevsky and Grekhovsky deposits, as well as third party ore (the majority from Kazakhmys PLC under a tolling arrangement) and Kazzinc industrial residues. The concentrator uses a flotation process to separate the ore into different metal concentrates. The concentrating process includes a heavy media separation process to deal with the dilution inherent in large-scale mining, crushing, grinding, flotation, thickening and filtering facilities. Free gold is recovered using gravity tables and centrifugal concentrators. Metal concentrates are transported by rail to the Ust-Kamenogorsk metallurgical complex and to third party copper smelters until the new copper smelter is commissioned in the first half of 2011.

Ridder:

The Ridder mining and concentrating complex mines and processes ores and produces zinc, copper, lead and gold concentrates. The complex consists of five assets:

- Tishinsky mine: The Tishinsky mine is an underground operation located 15 kilometres from the Ridder concentrator, adjacent to the Ust-Kamenogorsk-Ridder road and railway. The mine produces approximately 1.3 million MT of polymetallic ore per annum. A heavy media plant is located on the surface, removing up to 20 per cent. of waste rock prior to the upgraded ore being transported by rail to the Ridder concentrator for further processing.
- Ridder-Sokolniy mine: The Ridder-Sokolniy mine is an underground mine located three kilometres from the centre of the city of Ridder and is adjacent to the Ridder concentrator. The mine produces approximately 2 million MT of polymetallic ore per annum and is to remain in operation until at least 2040.
- Shubinsky mine: The Shubinsky mine, located 15 kilometres from the Ridder concentrator, is a small underground operation producing approximately 200k MT of zinc-copper ore per annum. Mining is undertaken through sub-level stoping methods with backfill. The Shubinsky mine is expected to remain in operation until 2027.
- Ridder concentrator: All ores mined at the Tishinsky, Ridder-Sokolniy and Shubinsky mines together with gold bearing-tailings are treated at the Ridder concentrator. Zinc concentrates are typically further processed at the Ridder zinc refinery, while lead and gold concentrates are shipped to the Ust-Kamenogorsk lead smelter for pyrometallurgical treatment. Copper concentrates produced at the concentrator are currently sold to third party copper smelters, until the commissioning of Kazzinc's Ust-Kamenogorsk copper smelter in 2011.

- Ridder zinc refinery: The Ridder zinc refinery produces approximately 110k MT of high grade zinc metal and alloys per annum. The refinery's sulphuric acid output is either sold locally by Kazzinc or neutralised into gypsum in the absence of demand for acid.

Ust-Kamenogorsk:

The Ust-Kamenogorsk metallurgical facility is fully integrated and will ensure the full and complex recovery of the maximum amount of valuable polymetallic components into marketable products. The facility produces zinc, lead, copper (from 2011), gold, silver, bismuth, cadmium, indium, selenium, thallium, tellurium, mercury, sulphuric acid and sodium antimonate. The intention is for it to also produce antimony and tin in the future, thereby bringing its entire complex metallurgical output to refined metal level. The complex consists of three assets:

- Zinc refinery: Originally constructed in the 1960s and substantially rebuilt over the past 12 years, the refinery produces 190k MT of zinc and metal alloy per annum. In addition to refined zinc metal, the refinery also produces zinc alloys, sulphuric acid and refined cadmium metal.
- Lead smelter: The current lead smelter employs a standard process of sintering-smelting-pyrometallurgical refinement. However, the process has certain modifications allowing the smelter to work in conjunction with the zinc plant and, in the future, the copper plant to enhance metal recoveries through the cross-treatment of residues and by-products from the two processes. The Ust-Kamenogorsk smelter produces up to 130k MT of refined LME-grade lead and 7k MT of blister copper per annum, as well as smaller amounts of selenium, bismuth, indium, tellurium, thallium, mercury and sodium antimonate. Kazzinc purchases lead concentrates from Kazakhmys PLC, Gorevsky mine in Russia, the Chelyabinsk zinc plant owned by Akzhal mine in Kazakhstan and a number of smaller producers as lead collector feed for use in gold production. In addition to this, Kazzinc purchases lead-bearing smelter residues and lead scrap from Russian and Kazakh secondary feed suppliers, as well as gold and silver concentrates from several suppliers in Russia, Kazakhstan, Tajikistan and Kyrgyzstan.
- Precious metals refinery: The precious metals refinery processes silver crust from the lead refinery and will also process copper anode slimes following the commissioning of the company's copper smelter and refinery. The refinery is currently producing approximately 110 MT of refined silver and 9 MT of refined gold per annum, both products LBMA registered, which is expected to increase significantly following the ramp-up in VasGold production described below.

Kazzinc is finalising the completion of a major new metallurgical project in which it will have invested a total of U.S.$870 million to construct a fully integrated processing facility designed to treat a wide range of polymetallic and gold raw materials. As part of the new metallurgical complex, the following projects are nearing completion and commissioning is scheduled for the first half of 2011:

- Construction of a new copper smelter which will be able to refine up to 370k MT of copper concentrate and produce 70k MT (and subsequently 87.5k MT) of cathode copper per annum. Glencore estimates that it will purchase 25 to 30 per cent. of the copper concentrate from third parties. Once the new copper smelter is operational, a portion of the gold-bearing concentrates will be processed through the copper smelter to optimise the economics of third party lead feed purchases and take advantage of the tax benefits of producing copper metal in Kazakhstan (commissioning is scheduled for the second quarter of 2011).
- Reconstruction of the lead smelter to accommodate more varied feed and to re-engineer the process flow at Ust-Kamenogorsk metallurgical complex. The current concentrates sintering stage at the lead smelter is to be replaced by smelting in an ISASMELT furnace. This is expected to result in greater feed composition flexibility, increased recoveries from polymetallic concentrates and significantly lower emissions.
- Construction of a sulphuric acid plant at the Ust-Kamenogorsk metallurgical complex designed using a dual contact absorption process, which is expected to meet all high sulphur off-gases produced by the ISASMELT copper furnace. The new acid plant underwent cold commissioning at the end of 2010 and is designed to become operational in 2011 once the copper ISASMELT furnace commences operation.

- Construction of auxiliary operations equipment associated with the new copper smelter and lead smelter, such as the modern electrolytic tank house (which should be operational in the first quarter of 2011).

Altyntau:

Kazzinc's gold assets consist of its 100 per cent. interest in VasGold together with its 48.3 per cent. interest in the Novoshirokinskoe gold mine and concentrator (which is held through a 50:50 joint venture with Highland Gold Mining Limited, the joint venture holding in total a 96.6 per cent. stake in Novoshirokinskoe) and a gold and silver stream provided from Kazzinc's other mining activities described above. VasGold is located in the Akmola region, 17 kilometres to the north of the city of Kokshetau. The region has well-developed infrastructure, including motor roads, railways, electricity and water supplies. It is the largest gold mining and processing operation in Kazakhstan. It is an open pit mine with a width of 1,200 metres, a length of 1,300 metres and a current depth of 70 metres. With a very conservative cut-off grade the final depth of the pit is expected to reach 450 metres. VasGold is currently evaluating several options involving optimisation of the open pit or using underground methods to access ore at further depth.

VasGold is a new mine which started producing gold in 2010. As at January 2011 VasGold was producing 6.6 million MT on an annualised basis, is capable of processing 8 million MT of ore per annum and is expected to recover 450k to 500k toz of gold per annum. Kazzinc has incurred capital expenditure for VasGold of approximately U.S.$514 million in developing and bringing this mine on stream.

WAI provided the following in relation to the VasGold mine:

	Resources			
	Measured	**Indicated**	**Inferred**	**Total**
Vasilkovskoje				
('000 MT)	45,230	141,560	99,080	285,870
Au (g/t)	1.75	1.72	1.77	1.74

Plans are also in place to expand the mine design capacity of Novoshirokinskoe from 450k MT per annum to 550k MT per annum by 2013.

Kazzinc's production of gold and silver from its mining operations in Ridder, Zyrianovsk and Novoshirokinskoe is the equivalent of 350k toz of gold per annum.

Kazzinc's gold assets have provided it with an opportunity to consolidate its gold activities within one gold-producing company and to potentially spin off that company or seek a listing for it on an international stock exchange. Such a company, on its own, would employ approximately 5,500 people and would operate two hubs in Kazakhstan and a mine in Russia and have the advantage of a diversified portfolio of operated assets producing 249k toz in 2010, expected to increase to 800k toz, including silver in gold equivalents by 2013. Kazzinc is currently reorganising this gold business into a new corporate structure to be known as Altyntau Gold, which will be the largest gold mining and processing operation in Kazakhstan. Pursuant to the terms of the Kazzinc SPAs (details of which are set out in Section X: "Additional Information"), Glencore will, subject to its commercial decision based on prevailing market conditions, use reasonable commercial endeavors to seek a listing of Altyntau to the premium listing segment of the Official List of the FSA, subject to Altyntau's eligibility for a listing.

Glencore believes that Altyntau has a number of significant competitive advantages which make it a highly attractive growth prospect. One of Altyntau's key competitive advantages is having access to excellent operational experience as a result of its history and relationships as part of Kazzinc. Altyntau's other major competitive advantage is its access to sophisticated processing operations, allowing Altyntau to process gold deposits that are challenging to process. Such refractory gold deposits account for most of the undeveloped gold deposits in Central Asia, and will, in time, account for a significant proportion of undeveloped gold deposits worldwide as gold deposits which can be processed using conventional methods are depleted.

Other:

Glencore purchases, through an off-take agreement, on average approximately 80 per cent. of Kazzinc's annual output of zinc at LME-based prices. Glencore also occasionally purchases concentrates from third parties and sells them to Kazzinc for processing. Whilst the volume of concentrates which Glencore sells to

Kazzinc have not historically been material, they are expected to increase in the future once the Company's metallurgical processing facilities for complex feed have been expanded.

Due to the geographic remoteness of the majority of the mining and processing facilities situated in Kazakhstan, Kazzinc, as an integrated operator, enjoys a competitive advantage over other Kazakh mining operations due to its ability to process and transport finished metal products. For similar geographic reasons, Kazzinc is also able to acquire concentrates from local producers for its smelters at a lower cost base than its Russian or Chinese competitors.

Kazzinc's operating expenses were impacted during the financial year ended 31 December 2009 by a new levy introduced by the Kazakh government. This new mineral extraction tax is linked to the royalties payable to the LME price of the relevant metal. At the same time, the profit tax rate was reduced from 30 per cent. to 20 per cent.

KATANGA:

Glencore owns 74.4 per cent. of Katanga, a company listed on the Toronto Stock Exchange, which is developing and operating high grade copper and cobalt mines with integrated metallurgical facilities in the Kolwezi region of the DRC through its 75 per cent. shareholding in Kamoto Copper Company SARL ("KCC"). Substantial high grade resources indicate a potential mine life for KCC in excess of 25 years and a potential to produce 310k MT per annum of copper and 8k MT per annum of cobalt and 22k MT of cobalt contained in cobalt hydroxide by 2015. As at 29 April 2011, the last practicable date prior to the publication of this Prospectus, Katanga had a market capitalisation of U.S.$3.6 billion. As at 31 December 2010, Katanga had approximately 3,175 employees and 3,313 contractors (including projects staff).

Katanga's assets were originally held through two joint ventures, KCC and DRC Copper and Cobalt Project SARL ("DCP"), the latter acquired by Katanga as part of a merger with Nikanor in January 2008. On 25 July 2009, an amended joint venture agreement was signed with Gécamines, pursuant to which it was agreed that, subject to Presidential approval, KCC and DCP would be merged into a single entity. On 27 April 2010, the merger of KCC and DCP was approved by Presidential decree.

KCC's integrated mine complex contains both underground and open pit mines, providing both sulphide and oxide ores. A concentrator and metallurgical plant enable the production of refined copper and cobalt metal on-site. The complex will be a mix of existing assets being progressively refurbished and new processing facilities which are being engineered and are under construction.

KCC's material assets are located in the Kolwezi District of the Katanga Province in the DRC and are as follows:

Mining assets:

- Kamoto Underground Mine ("KTO"), an operating underground mine: KTO is KCC's primary sulphide ore source and has twin six and a half by six metre ramp declines, a service shaft and a 11k MT per day capacity production shaft. Mining is currently a combination of room and pillar methods and cut and fill methods with sub-level caving being considered for future production. Ore from production chambers/stopes is taken to the underground crusher before being hoisted up the shaft to the surface in skips. Ore from development ends is taken to the underground grizzly and conveying system before being hoisted up the shaft to the surface in skips. KTO is scheduled to produce 37.8 million MT of ore at 3.9 per cent. copper grade through Life-of-Mine ("LOM") to 2030.
- T-17, an operating open pit mine: T-17 Open Pit is a cobalt-rich mine. T-17 Open Pit commenced production in 2008 and the reserves were scheduled to be depleted in 2011. However, exploration drilling conducted in 2009 and 2010 has identified (1) an extension of the resource in an easterly direction along strike near surface which will allow a continuation of open pit mining to 2012 with 1.5 million MT of ore being mined at 2.7 per cent. copper grade in 2011 and 2012; and (2) an extension of the reserve below the bottom of the current pit which will allow an additional 13.7 million MT of ore to be mined from underground at 2.6 per cent. copper grade from 2018 onwards.
- KOV Open Pit, an operating open pit mine: KOV Open Pit is considered to be the world's highest grade significant copper resource. KOV Open Pit is the primary development project within KCC's mining assets (see below) and is scheduled to produce 83.2 million MT of ore at 4.1 per cent. copper grade through LOM to 2030.
- Mashamba East Open Pit, a development project: Mashamba East Open Pit will commence production in 2015 and will produce 12.8 million MT of ore at 2.8 per cent. copper grade through LOM.

- Kamoto East Underground Mine ("KTE"), a development project: KTE will commence production in 2019 and will produce 20.5 million MT of ore at 4.4 per cent. copper grade through LOM.

Processing assets:

- Kamoto Concentrator ("KTC"), an operating concentrator: KTC consists of crushing facilities and four milling and flotation sections constructed between 1968 and 1982 and was recently completely refurbished back to its historical nameplate capacity of 7.6 million MT of ore per annum. Recent engineering has identified that the 32' DIMA mills, which have conventionally being operated as autogenous mills, can be converted to semi-autogenous mills which will result in the nameplate capacity increasing to in excess of 9 million MT of ore per annum. It is currently being refurbished to capacity of 150k MT of copper metal and 8k MT of cobalt to be completed by second quarter of 2011.
- Luilu Refinery ("Luilu"), an operating metallurgical plant: Luilu has concentrate dewatering facilities, sulphide concentrate roasters, atmospheric leaching circuits and an electro-winning tank house for production of both copper and cobalt metal.
- KCC is currently working on a front end design and scoping study which includes plans for the conversion of the existing unused electro-refinery to a 200k MT per annum electro-winning facility along with the installation of a 200k MT per annum solvent extraction plant. This new plant along with Luilu will enable KCC to increase copper production capacity to 310k MT of copper by 2015.

KCC also has a number of other mines and plants that may be operated initially or at a later stage in KCC's development.

Pursuant to its development plan, Katanga intends to accelerate pre-existing plans to ramp up production from 70k MT per annum to 150k MT per annum of copper by the end of the second quarter of 2011.

The primary development within the mining assets has been the dewatering and optimisation of KOV Open Pit, with a view to achieving the following:

- Accelerated ramp-up of ore production.
- Reduce the pre-strip requirement and the initial operational open pit strip ratio to provide a positive impact on the cash flow of the projects.
- Kamoto East and Oliveira ore body to be mined using KTO mine underground infrastructure.
- Mine planning to remain robust and flexible to meet ore requirements to achieve the Accelerated Development Plan to 150k MT per annum of copper whilst:
    - optimising future production and recoverability of resources; and
    - allowing for a further expansion of mining activities to support future production increases to 310k MT per annum of copper.

The primary development on the process side has been the refurbishment of existing facilities and infrastructure at KTC and Luilu, to be completed by the end of the second quarter of 2011 (compared with an original completion date of the end of the first quarter of 2013).

Based on current copper and cobalt spot prices and current operating cost assumptions in the development plan, it is expected that capital expenditures relating to the plan will be funded by existing cash balances and cash generated from operations.

At the time of the merger between Katanga and Nikanor, Glencore agreed to modify existing off-take agreements such that Glencore would purchase 100 per cent. of the quantity of copper and cobalt produced during the life of all mines owned or subsequently acquired by Katanga, with pricing linked to the LME.

MOPANI:

Mopani is an integrated mining and processing operation in the Copperbelt region of Zambia, producing copper and cobalt metal. In 2011, Mopani is expected to produce approximately 236k MT copper cathodes, of which approximately 111k MT will come from Mopani's mines while the rest will come from custom-treatment of copper concentrates from other mines, mainly Katanga, Mutanda and tolled third party sources. Mopani is also expected to produce approximately 2,200 MT cobalt metal in 2011.

Mopani is an integral part of Glencore's operations in Southern Africa. It can process oxide and sulphide copper-cobalt concentrates produced by Katanga and Mutanda. Mopani also produces sulphuric acid,

which is used in the leaching operations at Katanga and Mutanda. In the long term, once Mutanda and Kansuki reach full production levels, the sulphide concentrate produced at these minesis also expected to be processed at Mopani.

The operations are located in the cities of Kitwe and Mufulira and, as at 31 December 2010, the operations had approximately 7,500 permanent employees and approximately 6,400 contractors. Glencore owns 73.1 per cent. of Mopani, with the remainder of the business owned by First Quantum Minerals Ltd. (16.9 per cent.) and Zambia Consolidated Copper Mines Investment Holdings Plc (10 per cent.).

Nkana:

Nkana operations are located in Kitwe and consist of four underground mines, namely the Central Shaft, the South Ore Body Shaft, the Mindola Sub-vertical Shaft and the Mindola North Shaft. There are also four open pit mines (Mindola, Area A, Area D and Area J), a sulphide copper-cobalt concentrator, an oxide copper agitation leach-solvent extraction plant and a cobalt plant including a copper solvent extraction plant and an electro-winning tank house.

Nkana's mines contain copper-cobalt ore and have a mining capacity of approximately 3.9 million MT of ore per annum. Vertical crater retreat, sub-level caving longitudinal room and pillar and open stoping techniques are the predominant mining method used at the Nkana mines.

Mopani has started the construction of a new shaft at Nkana (the "Synclinorium Project") in order to mine an untapped ore resource containing approximately 115 million MT of copper ore. This project is expected to increase ore production at Nkana by 4.0 million MT per annum by 2018 and to extend the life of Nkana mining operations to at least 25 years. The total cost of the Synclinorium Project is estimated at U.S.$295 million and be funded from internally generated cashflows.

Open pit mining is currently undertaken in four areas (Mindola, Area A, Area D and Area J). Production has recently commenced in Area J while two new areas (Area K and Nose) are being drilled to define reserves and to develop a mining plan. The oxide ore produced from the open pits is processed in the agitation-leach plant.

The Nkana concentrator processes the sulphide ore mined in Nkana's underground and open pit mines and has a capacity of 12,000 MT per day. Separate copper and cobalt concentrates are produced from a bulk-flotation concentrate using a segregation process. The copper concentrate contains an average of 30 per cent. copper, whilst the cobalt concentrate typically contains an average of 10 per cent. copper and 1.8 per cent. cobalt. The copper concentrates produced at Nkana are then transported by road to Mufulira for smelting and refining.

Cobalt concentrates from Mopani's Nkana mine, Katanga and Mutanda, are processed directly at the Nkana cobalt plant. This plant has the flexibility to treat both sulphide and oxide concentrates. The current production capacity is 2,800 MT of cobalt metal per annum. This capacity is planned to be increased to 3,500 MT of cobalt metal per annum by 2020, or earlier if needed. The cobalt metal produced is at least 99.65 per cent. purity and its brands are listed with the LME. It also has a copper solvent extraction facility which recovers the copper contained in the cobalt concentrate.

Nkana has two other solvent extraction plants, which process copper from oxide ores from the Nkana open pit and in-situ leaching within the Central Shaft.

The copper electro-winning tank house at Nkana produces copper cathodes containing 99.95 per cent. copper purity from the solution streams produced by the solvent extraction plants. The cobalt electro-winning tank house produces drummed cobalt products in a similar manner to the copper electro-winning tank house.

Mopani has also begun construction of the TD52 project at Nkana, which involves leaching of an old tailings dam to extract the contained copper using solvent extraction and electro-winning. Production is expected to start in the third quarter of 2011.

Mufulira:

Mufulira operations consist of one main underground mine (Mufulira) and two portal mines (East and West), an oxide copper agitation leach solvent extraction plant, in-situ leaching, a sulphide copper concentrator, an Isasmelt smelter and a refinery.

Mufulira's mines have a mining capacity of approximately 1.9 million MT of ore per annum. The estimated life of mine is 11 years. Exploration is being performed in and around the current mining areas with the aim of increasing the mine's resources.

The Mufulira mine and West portal predominantly use the mechanised continuous retreat mining method. East portal uses the room and pillar with waste rock backfill. In-situ leaching of old underground stopes is also carried out.

The Mufulira concentrator treats all of the sulphide ore produced in the Mufulira mines, producing a copper concentrate containing an average of 41 per cent. copper. The concentrator has a capacity to process 8,350 MT of ore per day. In addition, there are three solvent extraction plants and the vat-leach plant, which recover copper from oxide ores mined at East and West portals, sourced from in-situ leaching or purchased from local miners.

The Mufulira smelter was commissioned in 2006 and uses Xstrata's ISASMELT technology to process sulphide copper concentrates. It processes all of the copper concentrate produced in the Mufulira and Nkana mines and also treats sulphide copper concentrates produced by other mines in the region as custom feed. The copper anodes coming from the smelter are then electro-refined in the Mufulira copper refinery to produce high quality copper cathodes ("MCM" LME brand) with a copper purity of 99.99 per cent.

The sulphuric acid produced as a by-product of the smelting operations is either used in Mopani's oxide copper leaching operations or sold to other copper mines in the area, including Glencore's operations in the DRC. The acid plant has a production capacity of 1,150 MT per day.

The capacity of the smelter (620k DMT of concentrate per annum as at December 2010) is being expanded in a phased approach to 720k DMT of concentrate per annum by the end of 2012. This would include installation of new Peirce-Smith converters and building a new acid plant. The total cost of this project is estimated to be U.S.$112 million and it is expected to be funded by internally generated cashflows.

Glencore has a 100 per cent. off-take agreement with Mopani for the life of the mines, with ownership transferred to Glencore at the mine gate and pricing based on LME prices.

Mopani's metal production is exported and either trucked or transported by rail to the ports of Durban in South Africa or to Dar es Salaam in Tanzania, where it is shipped worldwide.

AR ZINC:

Glencore owns 100 per cent. of AR Zinc, an integrated zinc and lead mining operation in Argentina. AR Zinc's operations are at three locations and comprise the Aguilar underground and open pit mine and concentrator plant, the Palpala lead smelter (both located in Jujuy province), and the AR Zinc smelter, located in Rosario, Argentina. The current smelting capacities are 44k MT per annum of zinc metal and 14k MT per annum of lead metal. Lead/silver concentrates from the Aguilar mine are mainly treated at the Palpala smelter, with approximately 10k to 15k MT per annum of lead concentrates in excess of Palpala's capacity being exported to Glencore at spot prices on arm's length terms. The life of the mine is approximately four years based on reserves and ten years based on resources. AR Zinc plans to continue exploration with the aim of extending the life of the mine.

The zinc concentrate from the Aguilar mine is treated at the AR Zinc smelter. The zinc metal produced is shipped to consumers primarily in Argentina and Brazil. Approximately 70 per cent. to 75 per cent. of feed for the AR Zinc smelter is supplied by the concentrate from the Aguilar mine, with the remaining capacity being sourced from third party mines in Bolivia and Los Quenuales. AR Zinc also produces sulphuric acid as a by-product of its processing operations and sells this locally for the production of fertilisers and the chemical and paper industry. AR Zinc employs approximately 1,400 people.

To the extent that metal is not sold to local customers, the balance is purchased by Glencore at spot prices on arm's length terms. In 2010 Glencore purchased 47 per cent. of Aguilar mine lead concentrate output and 65 per cent. of the silver metal output. All zinc sold by AR Zinc in 2010 was sold to third parties. Lead metal and sulphuric acid produced is sold to third parties in Argentina and Brazil. In total, 77 per cent. of gross revenues were generated from third parties and 23 per cent. from Glencore in the year ended 31 December 2010.

COBAR:

Glencore owns 100 per cent. of Cobar, based in Australia, comprising a high grade underground copper mine and a concentrate plant. The plant throughput is approximately 1.1 million MT of ore per annum and Cobar produces approximately 180k DMT of copper concentrate per annum.

Cobar's current expected life of mine is approximately five years based on reserves and approximately 11 years based on resources, although Cobar has previously been able to extend its expected life of mine through exploratory drilling in the area covered by its concession. Cobar is currently finalising a feasibility study for a hoisting shaft extension, which will allow lower cost access to deeper resource in the mine by the beginning of 2013 for an estimated capital cost of U.S.$139 million. The shaft will also have potential to allow an increase in annual production by approximately 90k DMT. In addition, Cobar has entered into two joint ventures to explore tenements in the area.

Glencore is Cobar's sole customer through a 100 per cent. off-take agreement over the life of the mine. Glencore buys all of the concentrate via a profit sharing agreement with treatment charge and refining charge expressed as a percentage of contained metal.

LOS QUENUALES:

Glencore owns 97.1 per cent. of Los Quenuales, a zinc and lead producer in Peru with mining operations at Iscaycruz and Yauliyacu. The remaining 3 per cent. is indirectly listed on the Lima Stock Exchange. The Iscaycruz operations consist of underground and open pit mines and concentrator, producing zinc and lead concentrates and Los Quenuales is in the process of negotiating surface access rights to mine 5 million MT of zinc-bearing resource (it currently holds only sub-surface rights). The expected life of Iscaycruz is three years based on reserves and ten years based on resources. Yauliyacu consists of an underground mine and a concentrator plant, producing zinc and lead/silver concentrates. The expected life of Yauliyacu is two years based on reserves and 19 years based on resources. Current capacity of Los Quenuales is 330k MT of zinc concentrate and 40k MT of lead concentrate per annum. In order to preserve the value of high grade ore during a period of low prevailing zinc prices, the Iscaycruz mine was placed on care and maintenance in March 2009, and operations were restarted in April 2010. The Yauliyacu mine operated at full capacity throughout this period. Due to a high level of silver in its concentrates, the operation remained profitable at the then prevailing low prices. Los Quenuales employs approximately 3,100 full time staff and contractors.

Glencore has a life of mine off-take agreement covering 100 per cent. of production from both mines with pricing on arm's length terms.

PASAR:

Glencore owns 78.2 per cent. of Pasar, the sole copper smelter and refinery in the Philippines, with the remaining 22 per cent. owned by local investors. Pasar is located on the coast of Leyte Island, and owns its own port, which can accommodate vessels with a displacement of up to 50k dead weight tonnage, from which production is shipped mainly to south east Asian markets. In addition, the assets also include an auxiliary sulphuric acid plant and a dore plant which produces an alloy of gold and silver. Pasar also produces as by-products selenium, slag, iron concentrates and gypsum. Pasar's current smelter capacity is 720k MT per annum of concentrate and its current refinery capacity is 215k MT per annum of cathodes.

Glencore supplies Pasar with a proportion of its copper concentrate and purchases 100 per cent. of Pasar's copper cathode exports through an off-take agreement based on LME prices.

PORTOVESME:

Glencore owns 100 per cent. of Portovesme, a zinc and lead smelter located in Sardinia, Italy. Portovesme is Italy's only primary zinc and lead smelter and comprises a metallurgical integrated smelting complex, with both primary and secondary smelting activities, including an electrolytic plant, a lead smelter, waelz kilns and a lead and precious metals refinery. Due to market conditions, the waelz kilns, lead smelter and lead refinery were placed on care and maintenance in 2009. The waelz line restarted operations later that year but the lead smelter and refinery are still on care and maintenance. However, should market conditions allow, Glencore would consider reopening the plant.

The plant has a production capacity of 120k MT per annum of zinc metal, 60k DMT per annum of waelz oxides and 80k MT per annum of lead metal. Portovesme plans to invest U.S.$40 million in a new solvent extraction plant, which began construction in December 2010 and is expected to be completed in the third

quarter of 2012 resulting in an increase of zinc metal production to 140k MT. The solvent extraction plant will treat all the waelz oxide produced from EAF dust recycling, which will make Portovesme vertically integrated for 30k MT per annum of zinc.

In addition to its smelting complex, Glencore also intends to invest approximately U.S.$200 million in an adjoining wind farm power facility to provide low cost power to Portovesme. For this purpose, Portovesme also rents some 10,000 hectares of land surrounding its operations.

PUNITAQUI:

Glencore owns 100 per cent. of Punitaqui, a copper mine and concentrator in Chile, acquired by Glencore as a brownfield development in early 2010. Following rehabilitation works, commercial production commenced in late 2010 with the operation forecast to produce around 40k DMT of copper concentrates in 2011. Work is underway to complete JORC certification of resources, currently estimated to give a mine life of approximately five years.

SINCHI WAYRA:

Glencore owns 100 per cent. of Sinchi Wayra, a company which operates five mining units and concentrating facilities in the Oruro and Potosi regions of Bolivia and which employs approximately 2,600 people. One of these five mines, Bolivar, is operated as a 50:50 joint venture with the Bolivian state mining company, Comibol. Two of the mines, Porco and Colquiri, are run under a lease contract with Comibol. The fourth mine, Poopo, is run under a lease agreement with a local co-operative. The fifth mining unit, the Caballo Blanco group, consists of the wholly owned San Lorenzo/Colquechaquita and its operations are expected to end in the near future. In early 2010, Sinchi Wayra acquired into the Caballo Blanco group, two additional mines, Reserva and Tres Amigos. Both mines became operative in May 2010 and it is intended that these mines will replace the declining production levels at San Lorenzo/Colquechaquita. Collectively, the mines have a current capacity of 205k MT of zinc concentrate, 15k MT of lead concentrate and 6k MT of tin concentrate per annum. The expected life of the mines as a group, considering current production capacities, on average is two years based on reserves and seven years based on resources. Further to a capital expenditure estimated at approximately U.S.$65 million, management believes that annual output can potentially be increased to approximately 300k MT of zinc concentrate and 30k MT of lead concentrate by 2013. The plan is currently being considered further by management, but such a plan is expected to include a project to reprocess old tailings containing significant levels of zinc and tin at the Colquiri mine, together with works to remove processing and hoisting bottlenecks.

Glencore has a 100 per cent. off-take agreement for the life of the mine which is priced on an arm's length basis. Historically, a proportion of Sinchi Wayra's tin concentrates was sold locally to take advantage of lower costs of transportation but, since the fourth quarter of 2009, for commercial reasons, all sales have been made to Glencore.

XSTRATA:

The zinc/copper/lead commodity department benefits from Glencore's relationship with Xstrata. Please refer to Section I: "Information on Glencore—Relationship and commercial arrangements with Xstrata" for further information on Xstrata.

MUTANDA:

Glencore holds a 50 per cent. interest in Samref Congo Sprl which in turn holds an 80 per cent. interest in Mutanda Mining Sprl, the owner of the Mutanda concession. The remaining 20 per cent. in Mutanda Mining Sprl was recently acquired by Rowny Assets Limited from Gécamines. Glencore is the operator.

Mutanda Mining Sprl was granted its rights to the Mutanda concession under its incorporation in May 2001. As part of the mining review process in the DRC, Samref Congo and Gécamines agreed to amend the creation agreement which confirmed Mutanda's exploitation permit. Mutanda is a newly developed high grade copper and cobalt producer, with its operations located in the province of Katanga in the DRC. Mutanda is being developed to produce 110k MT per annum of copper and 23k MT per annum of cobalt contained in cobalt hydroxide as of 2012. Based on current oxide reserves and resources the life of Mutanda's mines collectively are expected to be at least 20 years. A further extension of the ore body in the form of sulphides lies below these reserves which is expected to significantly extend the economic life of the operations. As at 31 December 2010, Mutanda has 929 employees.

Mutanda's licence was granted in accordance with the DRC mining code. As such Mutanda has the right to automatically renew its licence for several further 15-year periods (the licence is first due for renewal in 2022). This will allow Mutanda sufficient time to exploit all available reserves, which is consistent with the concession agreement and the joint venture agreement originally concluded with Gécamines (to which Rowny Assets Limited has acceded in lieu of Gécamines).

Mutanda's updated resource indicates 299 MT of ore grading 1.48 per cent. copper and 0.59 per cent. cobalt. As mentioned above, significant high grade sulphide extensions have been intersected which are not included in these numbers. This, together with competent host rock, indicates the suitability for large-scale underground mining operations beyond the current 20-year mine plan.

Mutanda's existing and planned operations consist of:

- Three open pit mines (Central Open Pit, East Open Pit and Central North West Open Pit). It is expected that these three pits will be consolidated into one large open pit.
- A 20k MT SXEW copper plant was commissioned in the fourth quarter of 2010 at a cost of approximately U.S.$165 million. By 31 December 2010, Mutanda produced 1,851 MT of copper cathodes and as at January 2011 the plant was ramping up production in accordance with the planned commissioning schedule.
- A 40k MT SXEW plant which is expected to be commissioned during the third quarter of 2011, at an estimated cost of U.S.$321 million.

Both the 20k and 40k MT SXEW plants will include the following processes: crushing, screening, milling, pre-leaching, leaching, clarification and SXEW.

Mutanda is currently completing engineering and design works to expand the combined 60k MT per annum SXEW operations to 110k MT per annum. The initial cost estimate for the expansion is U.S.$103.8 million with an expected completion schedule of 15 months (the first quarter of 2012).

- A concentrate operation, which consists of a crusher, small dense medium separation and spiral plant. This operation produces an approximately 25 per cent. copper concentrate, which is onsold to Mopani for refining into copper cathodes, and a high grade cobalt concentrate (more than 6 per cent. Co) for export.
- An acid plant due to be commissioned in August 2011, at an estimated cost of U.S.$69 million. The acid plant is expected to have a daily capacity of 390 MT of sulphuric acid and 73 MT of liquid SO2. Liquid SO2 production will replace SMBS, a reagent used in cobalt leaching. This will enable significant cost savings of approximately U.S.$30 million per annum in reduced costs.

Glencore has a life of mine off-take agreement for all copper and cobalt product produced by Mutanda with pricing based to LME.

KANSUKI:

Glencore holds a 50 per cent. interest in Kansuki Investments Sprl which in turn holds a 75 per cent. interest in Kansuki Sprl, the owner of the Kansuki concession (thereby giving Glencore an effective interest of 37.5 per cent. in Kansuki). The remaining 25 per cent. in Kansuki was recently acquired by Biko Invest Corp. from Gécamines. Glencore is the operator.

Kansuki Sprl was granted its rights in the Kansuki concession under its incorporation in July 2010. Kansuki is a 185 square kilometre copper and cobalt pre-development project which borders the Mutanda concession.

Kansuki's licence was granted in accordance with the DRC mining code. As such Kansuki has the right to automatically renew its licence for several further 15-year periods (the licence is first due for renewal in 2022). This will allow Kansuki sufficient time to exploit all available reserves, which is consistent with the concession agreement and the joint venture agreement originally concluded with Gécamines (to which Biko Invest. Corp has acceded in lieu of Gécamines).

Exploration of the Kansuki concession by Kansuki Sprl has commenced and is ongoing (currently a total U.S.$4.5 million has been spent). Kansuki's updated resource model as at 31 December 2010 indicated 50.7 million MT of ore grading, 1.29 per cent. copper and 0.31 per cent. cobalt.

There is significant potential along a recognised 12 kilometre anomaly of which less than four kilometres has been drilled. No results from this drilling programme have been included in the above resource numbers. Based on the drilling results to date, it is expected that the existing resource numbers will double

once infill drilling along these four kilometres is completed. Regional exploration, such as induced polarisation surveys, has delineated a second anomaly of approximately six kilometres along a known mineralised zone bordering the eastern boundary of Mutanda.

Kansuki is currently completing its initial feasibility study for submission by June 2011 under the terms of its creation agreement. As operator of both the Mutanda and Kansuki concessions and due to their close proximity (adjacent to each other) the development of Kansuki to a currently estimated 100k MT per annum of copper production by Glencore is expected to be accelerated. Significant synergies are available to the operations, including shared management, power, tailings, infrastructure and the joint mining of the shared high grade copper ore body and preliminary discussions have begun with respect to a potential combination of the Mutanda and Kansuki operations.

Glencore has a life of mine off-take agreement for all copper and cobalt product produced by Kansuki. Pursuant to the off-take agreements, all terms are arm's length and pricing for copper prices is LME based.

NYRSTAR:

As at 31 December 2010, Glencore owned 7.8 per cent. of Nyrstar, a leading global multi-metals business producing significant quantities of zinc and lead as well as other products including silver, gold and copper. Nyrstar is listed on NYSE Euronext Brussels. On 25 February 2011, Nyrstar launched a rights offering at a ratio of seven new shares for ten rights. Glencore has participated in the rights offering as a result of which, as at 29 April 2011, the last practicable date prior to publication of the Prospectus, Glencore held 7.8 per cent. of Nystar. As at 29 April 2011 Nyrstar had a market capitalisation of U.S.$2.3 billion.

PERKOA:

The Perkoa project is a zinc mine under construction in Burkina Faso. Glencore's ownership interest in Perkoa will increase to 50.1 per cent. by 2012 through its joint venture with Blackthorn Resources. The project has a JORC reserve of 6.3 million MT at 13.9 per cent. zinc, and expected mine life of nine years and is managed by Glencore. Commercial production is expected to commence in the first half of 2012.

In addition, on 23 March 2011, it was announced that Glencore had acquired a stake of 13 per cent. in Blackthorn Resources (its joint venture partner in Perkoa). Provided Glencore's shareholding remains above 9.99 per cent., Glencore will have the support of Blackthorn Resources to nominate a representative to sit on its board. Any such appointment will be subject to the usual shareholder approvals.

RECYLEX:

Recylex is the third largest lead producer in Europe, expected to produce approximately 135k MT lead metal in 2011. The Company recycles more than 10 million lead batteries per annum to produce secondary lead and plastic. It also recycles approximately 180k MT of waste steel dust from electric arc furnaces and produces waelz oxides containing approximately 45k MT of secondary zinc metal. It has eight production sites and employs more than 650 people in France, Germany and Belgium. As at 29 April 2011, Recylex had a market capitalisation of U.S.$0.2 billion.

Glencore purchases lead metal from Recylex under a short- to medium-term off-take agreement. Glencore also purchases lead metal, lead intermediate products and waelz oxides from Recylex under spot arrangements based on LME prices. Glencore accounted for 17.8 per cent. of Recylex's sales in the year ended 31 December 2010.

VOLCAN:

Glencore currently owns 5.94 per cent. of Volcan, the second largest zinc producer in Peru. An agreement is in place between Glencore and Volcan for the purchase of zinc and lead concentrates under a multi-year contract. As at 29 April 2011, Volcan had a market capitalisation of U.S.$3.8 billion.

POLYMET:

Glencore currently owns an aggregate of 14,433,962 common shares of Polymet, representing 9.3 per cent. of the 154,525,791 common shares outstanding. In addition, Glencore has the right to exchange U.S.$27.6 million in debentures into an additional 6,887,783 common shares of Polymet, to exercise outstanding warrants for an additional three million common shares of Polymet at U.S.$2.00 per share, and to acquire an additional ten million common shares of Polymet pursuant to a private placement announced by Polymet, for a total of 34,321,745 common shares representing approximately 19.7 per cent. of Polymet's partially diluted common shares based on capitalised interest as at 31 December 2010.

Polymet, which plans to mine and process copper, nickel, cobalt, platinum and palladium and gold, is listed on the NYSE and the Toronto Stock Exchange and its operational headquarters are located in Hoyt Lakes, Minnesota. As at 29 April 2011, the last practicable date prior to publication of this Prospectus, Polymet had a market capitalisation of approximately U.S.$0.3 billion.

Alumina/aluminium commodity department (industrial activities, Metals and Minerals business segment)

Overview

The table below summarises information about the key alumina/aluminium producing industrial assets as at 31 December 2010:

Company	Country	Commodity	Annual production capacity	Glencore's ownership interest	Remaining ownership interest	Any contractual relationship with Glencore
Controlled:						
Columbia Falls	U.S.	Aluminium	168k MT	100%	—	Supply and purchase agreements
Sherwin Alumina . .	U.S.	Alumina	1.6 million MT	100%	—	Supply and purchase agreements
Non-controlled:						
Century Aluminum .	U.S.	Aluminium	896k MT	44.0% (39.1% voting common stock)	Publicly traded on NASDAQ	Supply and purchase agreements
UC Rusal	Russia	Alumina	11.3 million MT	8.75%	Publicly traded on HKSE, Euronext Paris, MICEX and RTS	Purchase agreements
		Aluminium	4.5 million MT	—		Purchase agreements

Financial information

The table below sets out selected financial information on the controlled aluminium/alumina industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010. The information in this table has been extracted without material adjustment from Glencore's accounting books and records, which are unaudited:

	2008	2009	2010
	(U.S.$ million) (Unaudited)		
Alumina/aluminium			
Revenue	263	235	422
Adjusted EBITDA pre-exceptional items[1][2]	34	(117)	(9)
Adjusted EBIT pre-exceptional items[1][2]	22	(125)	(17)
Capex	13	19	31

Notes:

(1) Excludes share of income from associates and dividends.

(2) 2009 negatively impacted by a U.S.$82 million charge related to natural gas hedges entered into by Sherwin Alumina to lock-in natural gas prices.

Production

The table below sets out the production of the controlled alumina/aluminium assets for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

	Year ended 31 December								
	2008			2009			2010		
	Production	Production using feed from own sources	Production using feed from third party sources	Production	Production using feed from own sources	Production using feed from third party sources	Production	Production using feed from own sources	Production using feed from third party sources
					('000 MT)				
Columbia Falls *Aluminum* . . .	74.9	N/A	74.9	16.5	N/A	16.5	—	N/A	—
Sherwin Alumina *Alumina*	1,455	N/A	1,455	1,206	N/A	1,206	1,259	N/A	1,259

COLUMBIA FALLS:

Glencore owns 100 per cent. of Columbia Falls. Columbia Falls is an aluminium smelter in Montana in the U.S., which has a production capacity of 168k MT of primary aluminium per annum. The plant is currently idle.

SHERWIN ALUMINA:

Glencore owns 100 per cent. of an alumina refinery processing plant, Sherwin Alumina, which is located near Corpus Christi, Texas, in the U.S. The plant produces two main classes of products: smelter grade alumina (capacity of 1.4 million MT per annum) and hydrate chemical grade alumina (capacity of 0.2 million MT per annum). Glencore provides all of the bauxite Sherwin Alumina requires for its refinery and processing operations. Glencore also purchases and markets all of the alumina that Sherwin Alumina produces.

Alumina refining is a very energy intensive process. Given Sherwin Alumina's location on the U.S. Gulf coast, it utilises U.S. natural gas as its energy source. The competitive position of Sherwin Alumina has dramatically improved recently given the relatively low price of U.S. natural gas in comparison to other fuels used in the worldwide alumina refining industry. This development in conjunction with contractual arrangement for other raw materials that are linked to LME prices for aluminium (effectively creating a natural hedge) has allowed Sherwin Alumina to substantially improve its position on the global cost curve. In addition to this, Sherwin Alumina has made significant investments in its port infrastructure in 2010 in order to reduce fixed operating costs going forward.

CENTURY ALUMINUM:

Glencore owns a 44.0 per cent. stake in Century Aluminum, a company listed on the NASDAQ with aluminium smelting and refining operations in the U.S. and Iceland. As at 29 April 2011, the last practicable date prior to the publication of this Prospectus, Century Aluminum had a market capitalisation of U.S.$1.9 billion. Century Aluminum's smelting operations include three wholly owned smelters: Nordural in Iceland; Hawesville in Kentucky, U.S.; and Ravenswood in West Virginia, U.S., which have production capacities of 260k MT, 244k MT and 170k MT per annum, respectively. Century Aluminum also owns a 49.67 per cent. stake in the Mount Holly smelter in South Carolina, U.S., which has a production capacity of 222k MT per annum. Century Aluminum is currently constructing a greenfield aluminium plant, the Helguvik Project, in Iceland which is expected to have a production capacity in the range of 250k MT to 360k MT upon its completion.

Glencore provides alumina to Century Aluminum at prices which are referenced to the price of aluminium on the LME. Century Aluminum sells aluminium to Glencore on both a spot and long-term contract basis, with reference to LME prices. Century Aluminum is also party to separate ten-year and seven-year alumina tolling agreements in Iceland with Glencore for 90k MT and 40k MT, expiring in 2016 and 2014, respectively.

In addition, Glencore has entered into two cash-settled total return swaps over 9.8 per cent. of Century Aluminum's common shares. The swaps provide Glencore with additional economic exposure to changes in Century Aluminum's share price. The swaps have been entered into at prices of U.S.$9.72 and

U.S.$16.66 per common share and terminate in two years from September 2010 and March 2011, respectively. The counterparty to both swaps is a highly rated financial institution.

Glencore currently has two directors on the board of Century Aluminum (being Willy Strothotte and Daniel Goldberg) and has also designated an independent director (being Andrew Michelmore) as its appointee on the Century Aluminum board. In addition, Glencore has designated for nomination by the board of Century Aluminum a further independent director (being Terrence Wilkinson) and two directors (being Steven Kalmin and Steven Blumgart), each of whom will be standing for election at the Century Aluminum 2011 annual general meeting expected to be held in June 2011. Century Aluminum has agreed to publicly support and recommend the election of Mr Wilkinson, Mr Kalmin and Mr Blumgart at such annual general meeting.

UC RUSAL:

Glencore owns 8.75 per cent. of UC Rusal, a vertically-integrated upstream aluminium company listed on the HKSE, Euronext Paris and the Russian stock exchanges MICEX and RTS. As at 29 April 2011, the last practicable date prior to the publication of this Prospectus, UC Rusal had a market capitalisation of U.S.$23.2 billion. UC Rusal operates eight bauxite and nepheline ore mines, 12 alumina refineries (of which nine were in operation in the year ended 31 December 2010), 16 aluminium smelters, three foil mills, one cathode plant and packaging production centres along with power-generating facilities. UC Rusal employs more than 75,000 people, working in 19 countries, spanning five continents. UC Rusal's production capacities are 4.5 million MT of aluminium and 11.3 million MT of alumina per annum.

In addition to its mining and refining operations, UC Rusal also holds a 25 per cent. stake in Norilsk Nickel, the largest global producer of nickel and palladium.

UC Rusal supplies Glencore with alumina and aluminium through long-term supply contracts, pursuant to which, Glencore is UC Rusal's single largest purchaser of alumina and aluminium. Glencore is entitled to appoint one nominee to the UC Rusal board of directors, currently Ivan Glasenberg. In addition, Glencore has representation on the UC Rusal marketing committee, providing Glencore with visibility over global alumina and aluminium production and supply trends and a strong position from which to compete for business within the global markets for these products.

OTHER:

The alumina/aluminium commodity department is in discussions to acquire a stake in an alumina refinery. Should this proceed, it would not be a material acquisition.

Ferroalloys/nickel/cobalt commodity department (industrial activities, Metals and Minerals business segment)

Overview

The table below summarises information about the key ferroalloys/nickel/cobalt producing industrial assets as at 31 December 2010:

Company	Country	Commodity	Annual production capacity	Glencore's ownership interest	Remaining ownership interest	Any contractual relationship with Glencore
Controlled:						
Murrin Murrin[(1)] . .	Australia	Nickel Cobalt	40k MT 3.5k MT	82.4%	17.6% publicly traded	Purchase agreements
Non-controlled:						
Xstrata	UK/Switzerland	Nickel Ferroalloys	121KT 1,979 KT	34.5%	65.5% publicly traded on London Stock Exchange and SIX	Purchase agreements, agency agreements, marketing agreements, distribution agreements

Note:

(1) Glencore holds its interest in Murrin Murrin via a direct 40 per cent. interest in Murrin Murrin and an indirect 70.6 per cent. interest in Minara, which holds the remaining 60 per cent. interest in Murrin Murrin. On 24 February 2011, Minara issued additional shares to employees, reducing Glencore's shareholding in Minara to 70.5 per cent. Effective ownership in Murrin Murrin consequently reduced to 82.3 per cent.

Financial information

The table below sets out selected financial information on the controlled ferroalloys/nickel/cobalt industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010. The

information in this table has been extracted without material adjustment from Glencore's accounting books and records, which are unaudited:

	2008	2009	2010
	(U.S.$ million) *(Unaudited)*		
Ferroalloys/Nickel/Cobalt			
Revenue	649	609	713
Adjusted EBITDA pre-exceptional items[1]	113	119	189
Adjusted EBIT pre-exceptional items[1]	13	21	79
Capex	138	10	67

Note:

(1) Excludes share of income from associates and dividends.

Production

The table below sets out production of the controlled ferroalloys/nickel/cobalt assets for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

	Year ended 31 December								
	2008			2009			2010		
Murrin Murrin	Production	Production using feed from own sources	Production using feed from third party sources	Production	Production using feed from own sources	Production using feed from third party sources	Production	Production using feed from own sources	Production using feed from third party sources
	(MT)	*(MT)*	*(MT)*	*(MT)*	*(MT)*	*(MT)*	*(MT)*	*(MT)*	*(MT)*
Nickel	30,514	27,674	2,840	32,977	31,761	1,216	28,378	27,679	698
Cobalt	2,018	1,906	111	2,350	2,262	88	1,976	1,881	94

Reserves and resources

The table below sets out the total mine reserves and resources summary for the ferroalloys/nickel/cobalt commodity department:

		Reserves			Resources			
Minara[1][2]	Commodity	Proved	Probable	Total	Measured	Indicated	Inferred	Total
Murrin Murrin[1][2]	Ore ('000 MT)	131,183	64,948	196,131	152,068	105,966	10,283	268,318
	Nickel (%)	1.05	1.04	1.05	1.03	0.99	0.9	1.01
	Cobalt (%)	0.078	0.079	0.078	0.074	0.076	0.058	0.074
	Nickel Cut off grade				0.8%	0.8%	0.8%	

Notes:

(1) As at 31 December 2010.

(2) Remaining mine life: at the current nameplate capacity of 40k MT per annum, the project's operation life is in excess of 50 years. Expiry date of relevant tenement: different tenure for each tenement, ranging from 13 February 2012 to 5 October 2031.

Competent Persons: the information relating to mineral resources is based on information compiled by Mr Stephen King and Mr David Selfe and has been prepared in accordance with the JORC Code. The information relating to ore reserves is based on information compiled by Mr Brett Fowler and has been prepared in accordance with the JORC Code. The information relating to metallurgical results is based on information compiled by Mr John O'Callaghan and has been prepared in accordance with the JORC Code. Mr Selfe, Mr King, Mr Fowler and Mr O'Callaghan all have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking.

MURRIN MURRIN:

Glencore owns 70.6 per cent. of Minara, a nickel producer listed on the Australian Securities Exchange. Minara holds a 60 per cent. interest in the Murrin Murrin joint venture, which owns the Murrin Murrin nickel/cobalt project and which it also operates. As at 29 April 2011, the last practicable date prior to publication of this Prospectus, Minara had a market capitalisation of U.S.$1.0 billion. Glencore also owns 100 per cent. of Glenmurrin Pty Ltd., which holds the remaining 40 per cent. interest in the Murrin Murrin joint venture. Glencore, therefore, effectively owns 82.4 per cent. of Murrin Murrin through its interests in Minara and Glenmurrin Pty Ltd. Murrin Murrin is one of Australia's largest nickel producers and is one of the top ten producers of nickel in the world. The Murrin Murrin plant is projected to produce 33k MT to 37k MT of nickel and a quantity of cobalt proportionate to historic production in 2011. Its integrated operations include open pit mining and ore processing at the plant.

Glencore has off-take agreements with Minara and Glenmurrin Pty Ltd. for 100 per cent. of metal production which mature on 1 December 2011 and 30 June 2018, respectively. The off-take agreements supply Glencore with nickel produced by Murrin Murrin based on LME prices and cobalt produced by Murrin Murrin based on market sales prices. Glencore has taken steps to renew its off-take arrangements with Minara ahead of the expiry of the off-take agreement on 1 December 2011 and has agreed to renew its off-take agreement with effect from 1 December 2011 subject to approval from the independent shareholders of Minara at the Minara annual general meeting to be held on 13 May 2011.

XSTRATA:

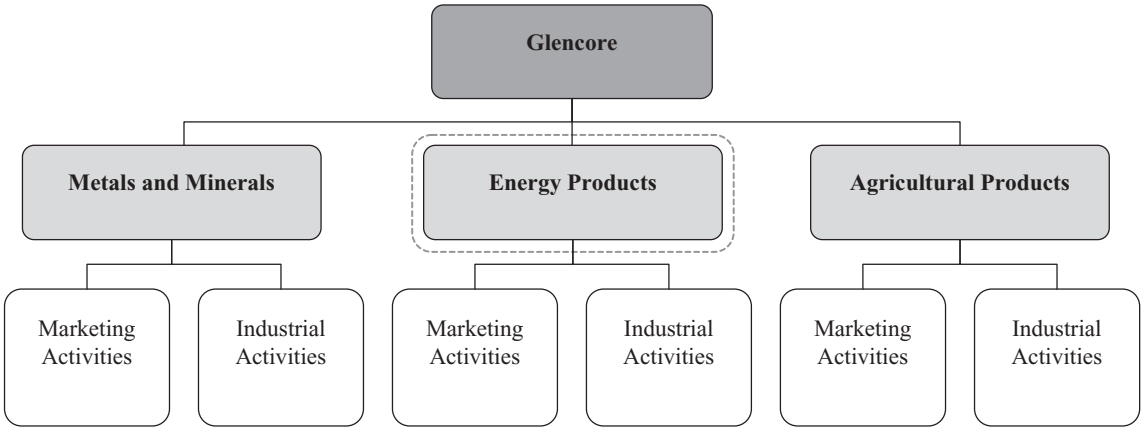
The ferroalloys/nickel/cobalt commodity department benefits from Glencore's relationship with Xstrata. Please refer to Section I: "Information on Glencore—Relationship and commercial arrangements with Xstrata" for further information on Xstrata.

OTHER:

The ferroalloy/nickel/cobalt commodity department is in discussions, along with a joint venture partner, to acquire certain manganese mining operations and production facilities, along with a long term marketing agreement and ore offtake contract. Should this proceed, it would not be a material acquisition.

Energy Products

Introduction (Energy Products business segment)



Glencore's Energy Products business segment markets crude oil and oil products (such as fuel oil, heating oil, gasoline, naphtha, jet fuel, diesel and liquefied petroleum gas), coal and coke. These commodities are marketed primarily through Glencore's offices in London, Baar, Stamford and Singapore, with key support from a number of other locations.

Selected key financial information in relation to the Energy Products business segment's marketing and industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010 is set out below. This information has been extracted without material adjustment from Section VI: "Historical

Financial Information" except where marked as unaudited. Unaudited information has been extracted without material adjustment from Glencore's accounting records.

	2008	2009	2010
	(U.S.$ million)		
Marketing Activities			
Revenue (unaudited)[1]	95,254	60,790	87,850
Adjusted EBITDA pre-exceptional items[2]	1,609	945	470
Adjusted EBIT pre-exceptional items[2]	1,609	945	450
Industrial Activities			
Revenue (unaudited)[1]	2,903	1,601	1,499
Adjusted EBITDA pre-exceptional items[2][3][4]	659	371	313
Adjusted EBIT pre-exceptional items[2][3][4]	549	322	189
Share of income from associates and dividends (excl. Xstrata)[4]	(27)	91	46
Capex	698	393	818
Total Energy			
Revenue	98,157	62,391	89,349
Adjusted EBITDA pre-exceptional items[2][5]	2,241	1,407	829
Adjusted EBIT pre-exceptional items[2][5]	2,131	1,358	685

Notes:

(1) Revenue is not split between Marketing and Industrial activities in the audited Historical Financial Information set out in Section VI of this document and is therefore marked as unaudited. Total segment and total Group revenue is audited.

(2) Includes corporate selling, general and administrative expenses, but excluding variable pool bonus accrual, which is recorded at group/corporate level.

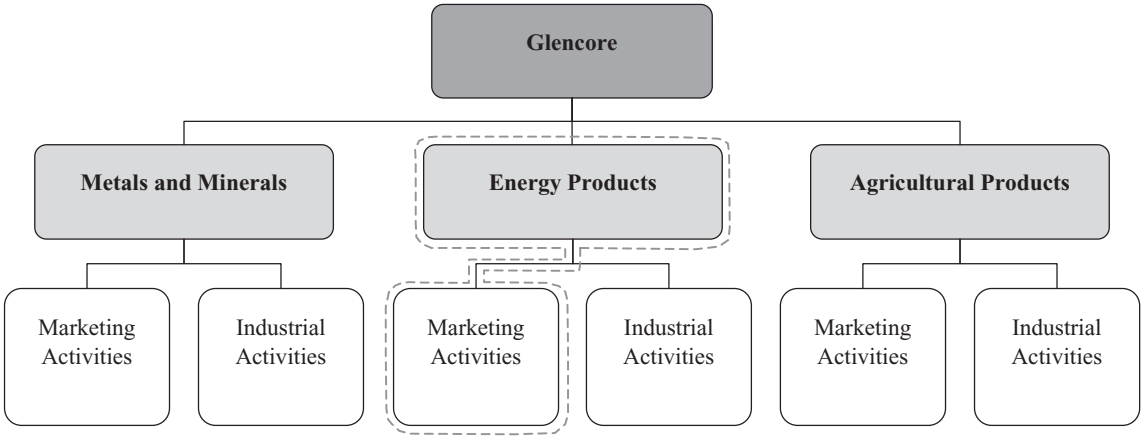
(3) Excludes share of income from associates and dividends.

(4) Adjusted EBITDA pre-exceptional items plus Share of income from associates and dividends and Adjusted EBIT pre-exceptional items plus Share of income from associates and dividends are audited.

(5) Includes share of income from associates and dividends.

The Energy Products business segment currently has some 800 direct employees globally (excluding individuals employed within Glencore's industrial activities), with approximately 340 based in London, 86 in Stamford, 107 in Singapore and 39 in Baar, with the remaining approximately 230 spread across 23 global office locations. This business segment also employs some 4,600 individuals globally in its industrial activities.

Marketing activities (Energy Products business segment)



The Energy Products business segment focuses on the following commodity departments: oil and coal/coke. The activities of Glencore's Energy Products business segment are supported by ownership interests in controlled and non-controlled coal mining and oil production operations as well as investments in strategic handling, storage and freight equipment and facilities. Glencore's energy products are marketed primarily through Glencore's offices in London, Baar, Stamford and Singapore, with key support from a number of other locations, including Beijing and Moscow, in order to take advantage of geographical opportunities. The global teams operate in an integrated manner.

The table below sets out the marketing volumes sold to third parties of each main commodity category handled by the Energy Products business segment for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

Marketing volumes sold to third parties	2008	2009	2010
	(million MT)		
Crude oil	39.7	39.7	51.9
Oil products	68.7	69.3	66.9
Thermal coal	90.1	98.0	92.2
Metallurgical coal	5.6	7.7	8.0
Coke	1.5	0.3	0.7

Examples of marketing strategies for the Energy Products business segment include:

- Glencore uses its ability to store significant quantities of oil and oil products either on vessels or in on-land storage facilities to exploit time-dependent arbitrage opportunities created by higher forward prices (so-called carry trades in a contango-shaped market).
- Glencore uses its infrastructure and global information network to exploit arbitrage opportunities created by geographic price dislocations.
- Glencore leverages its blending capabilities in order to meet customers' product specifications in ways that maximise income, for example by blending cheaper products to create more valuable products or products that are demanded by more specific customers.
- Glencore uses its storage assets to ensure that it has physical oil available for delivery against its marketing obligations, limiting the economic downside risk that Glencore takes on sales of physical oil.
- Glencore uses its established relationships with significant players and the handling of significant volumes in geographically diverse regions to provide it with insight into local and global supply and demand dynamics, enabling Glencore rapidly to identify market trends or specific arbitrage opportunities.
- Glencore manages the source of supply of coal and coke from all key origins in order to maximise geographic arbitrage opportunities. Prodeco's supply of high-quality coal provides Glencore with the opportunity to export directly to specific markets in Europe and North America. Access to freight at competitive rates represents a key component in being able to seize geographic arbitrage opportunities.

Oil commodity department (marketing activities, Energy Products business segment)

Overview

The oil commodity department comprises marketing operations in crude oil, refined products, natural gas and freight, supported by access to a wide range of logistics, storage and industrial assets investments. Crude oil represents the most significant product supplied by physical volume. Oil products primarily include mid-distillates, gasoline, residuals, naphtha, natural gas and liquid petroleum gas.

Market

Glencore believes it is among the world's largest non-integrated physical suppliers of crude oil and oil products, supplying a physical volume of approximately 2.5 million bbls per day in 2010. This is a volume equivalent to some 3 per cent. of the world's oil consumption.

Suppliers

Glencore sources crude oil and oil products from a variety of supplier types. Its diverse supplier base includes the major integrated oil companies, NOCs, independent oil companies, other marketing companies and refineries. No off-take arrangement (other than that with its affiliate OAO RussNeft which accounted for some 4 per cent. of purchases in the year ended 31 December 2010) accounts for a significant proportion of total purchases. The top ten suppliers accounted for approximately 30 per cent. of the total purchases in the year ended 31 December 2010. Eight of the top ten suppliers in the year ended 31 December 2010 were also in the top ten suppliers in the year ended 31 December 2009.

Customers

There is a high degree of overlap between the crude oil and oil products customer and supplier base, particularly in respect of the major integrated oil companies. Five of the top ten suppliers in the year ended 31 December 2010 are also amongst the top ten customers. The top ten customers accounted for approximately 24 per cent. of sales in the year ended 31 December 2010. Seven of the top ten customers in the year ended 31 December 2010 were also in the top ten customers in the year ended 31 December 2009. Glencore's significant customers are the major integrated oil companies such as Shell, BP and ExxonMobil, as well as NOCs such as Indian Oil Corporation Ltd, Nigerian National Petroleum Company and Petróleos Mexicanos. In addition to the major integrated oil companies and NOCs, crude oil and oil products are sold to a diverse customer base, including utilities and oil refineries. While the percentage of term contracts is relatively small, this is largely consistent with the structure of the oil market and spot contracts are primarily with customers with whom relationships have been established and developed over a long time and are therefore considered similar in nature to term contracts due to their expected renewal. Glencore is also active in supplying natural gas to industrial consumers, with the gas delivered via pipeline in the U.S., the United Kingdom and other parts of Europe.

Features of the market

The marketing operations principally involve physical sourcing, storage, blending and distribution of oil. Paper transactions are also entered into for the purposes of hedging and/or taking or increasing exposures, within group limits and policies, where a physically-backed position exists. The availability of liquid electronic trading markets, covering the majority of the products marketed by the crude oil and oil products operations, enables marketers to hedge their physical oil activities as well as provide profit enhancing opportunities in relation to physical marketing strategies.

Logistics

Glencore's crude oil and oil products operations source their freight requirements through arrangements with Glencore's internal oil freight desk. Such voyages make up approximately 35 per cent. of voyages by revenue procured by the freight desk, with the balance undertaken for third parties. Glencore has a large and diversified fleet of 203 vessels as at 31 December 2010 operated under various short and long-term time charters and commercial management arrangements; of which 176 vessels are held under time charter, both from third party owners and from Glencore's own joint-venture and 100 per cent. equity interests, and another 27 vessels are commercially managed for third party owners (not leased or owned). The average remaining fixed charge hire period for the majority of 176 vessels under time charter was approximately two years at such date. In total, Glencore has equity interests in 41 vessels, which are delivered or currently under construction, with expected progressive delivery until March 2012. The majority of these vessels service Glencore's Energy Products business segment. Where Glencore part owns vessels through joint venture arrangements, its joint venture partners are typically responsible for the technical management of these vessels, while Glencore is typically responsible for the commercial management of these vessels under charter arrangements. Many vessels are flexible and can also handle vegetable and palm oils.

Glencore's logistical operations also include Chemoil, a leading supplier of marine fuels listed on the Singapore Stock Exchange. Glencore completed its acquisition of a 51.54 per cent. stake in March 2010. Chemoil's primary business is the marketing and supply of bunker fuel and fuel oil and it operates in major shipping ports around the globe and owns or leases key storage terminals amounting to a total of 1.5 million cubic metres.

Finally, Glencore's logistical operations are supported by its access to some 9.0 million cubic metres of storage capacity that it holds through a network of storage tanks and terminals that it owns interests in (including Chemoil) or leases from third parties. The portion of storage capacity in which Glencore has equity interests amounts to some 3.9 million cubic metres, comprised of a number of facilities in strategic locations around the world.

Competitors

Glencore's main competitors are Vitol Group, Trafigura Group, Mercuria Energy and Gunvor, all of which are largely asset-light (little, if any, upstream production) business models. Glencore also faces marketing competition from banks such as Morgan Stanley and Goldman Sachs, which have some infrastructure and no current oil production, although the large majority of their business activities involve derivatives and

not the physical sourcing and distribution of oil. Volumes captured by oil majors such as BP and Shell are also in direct competition with Glencore's marketing volumes, although their participation in the market increases overall volume and liquidity.

Coal/coke commodity department (marketing activities, Energy Products business segment)

Overview

The coal/coke commodity department is involved in the production and marketing of coal products. The marketing activities are supported by the industrial asset stakes, which provide both access to supply and market information.

Market

Glencore believes that it is the largest marketer of seaborne coal globally, supplying 100.9 million MT or approximately 11 per cent. of the seaborne coal market in the year ended 31 December 2010. Of the 100.9 million MT marketed, Glencore supplied 8.0 million MT of seaborne metallurgical coal or approximately 3 per cent. of the market and 92.2 million MT of thermal coal or approximately 13 per cent. of the market in the year ended 31 December 2010. Glencore also provided advisory and agency services in respect of a further 125.9 million MT of coal in the year ended 31 December 2010. The coal/coke commodity department's market share of principal, advisory and agency seaborne thermal coal for 2010 was approximately 28 per cent. while for seaborne metallurgical coal it was approximately 12 per cent. The department's share of principal, advisory and agency seaborne coal marketed was approximately 24 per cent. in the same year. In the coke market, Glencore believes that it has a significant position in China with approximately 17 per cent. share of Chinese coke exports.

Suppliers

In the year ended 31 December 2010, the coal/coke commodity department sourced approximately 25 per cent. of sales from its stakes in industrial assets. Glencore has maintained a relatively consistent and broad mix of key suppliers. The top ten suppliers accounted for approximately 52 per cent. of total purchases by volume in the year ended 31 December 2010. Eight of the top ten suppliers in the year ended 31 December 2010 were also in the top ten suppliers in the year ended 31 December 2009, reflecting long-term relationships.

Approximately 40 per cent. of the volumes purchased from the top ten suppliers in the year ended 31 December 2010 were under long-term contracts. Six of the top ten suppliers in the year ended 31 December 2010 were under long-term contracts.

Glencore also currently owns 34.5 per cent. of Xstrata, which has substantial coal mining operations in Australia, South Africa, Canada and Colombia, in respect of whose coal exports, Glencore provides advisory services. The main sources of Glencore's principal steam coal purchases are the coal mining companies in South Africa, Russia, Australia, Colombia, the U.S., Canada and Indonesia, accounting for most of the strategically important producing regions. Glencore's diversified supply base allows it to better manage the changing nature of coal demand and supply dynamics.

Customers

Glencore supplies thermal coal to a diverse geographic and industrial customer base, including major utilities in Spain, France, Italy, the United Kingdom, Hong Kong, China, Japan, Taiwan and South Korea. Glencore also sells coal to major cement producers, steel mills, chemical plants and other industrial users throughout the world. The top ten customers represented approximately 40 per cent. of sales in the year ended 31 December 2010. Six of the top ten customers in the year ended 31 December 2010 were also in the top ten customers in the year ended 31 December 2009. Glencore markets coal either on a principal basis, where it takes ownership of the coal, or on an agency/advisory basis, pursuant to a marketing agreement. The three primary marketing agreements are with Xstrata, which is a market advisory agreement until 2022, PT Kaltim Prima, the largest coal producer in Indonesia, which is a marketing agreement until 2021 and PT Arutmin Indonesia, which is a marketing agreement from November 2011 to September 2019. Approximately 20 per cent. of the volumes sold to the top ten customers in the year ended 31 December 2010 are under long-term sales agreements.

Features of the market

Whilst traditionally coal has been sold on a physical bilateral basis, without a supporting commodity exchange, in recent years, a sizeable coal paper derivatives market has developed, providing a spot and forward market for certain standard coal specifications. Glencore is able to transact in these markets in order to manage risks in relation to its physical supply of coal products.

Logistics

Glencore's coal operations employ a specialist freight team located in Baar and Singapore. This team uses its considerable immersion in the seaborne bulk freight market to source competitive freight from third party owners and carriers. The coal freight business operates four cape and two panamax size vessels on long-term time charter (between five and 15 years' duration) and owns two supramax vessels through joint ventures. In addition, the coal/coke department has access to 28 sets of paired tugs/barges on long-term time charter servicing Glencore's Indonesian coal transhipment operations.

The timing of procuring freight for coal operations is dictated primarily by physical coal sales activities, but also by global freight market dynamics at a point in time and/or forward expectations. Furthermore, geographic and time spreads are taken in order to allow the coal team to fully arbitrage relative value opportunities between the various origins and destinations of the underlying commodity. Maximum flexibility and optionality is thus sought to be maintained at all times. The operation manages freight from a combination of voyage and time charter based contracts, spot market bookings and derivative contracts which are primarily used to hedge physical freight exposure inherent in the overall position. Freight services are also supplied to third parties and are often sourced via joint venture agreements to enhance volume and gain timely market information in relation to industry trade patterns and rate developments.

Glencore's coal freight business has experienced significant growth from 1994 (3.3 million MT carried with 70 vessels) to 2010 (35.4 million MT carried with 485 vessels).

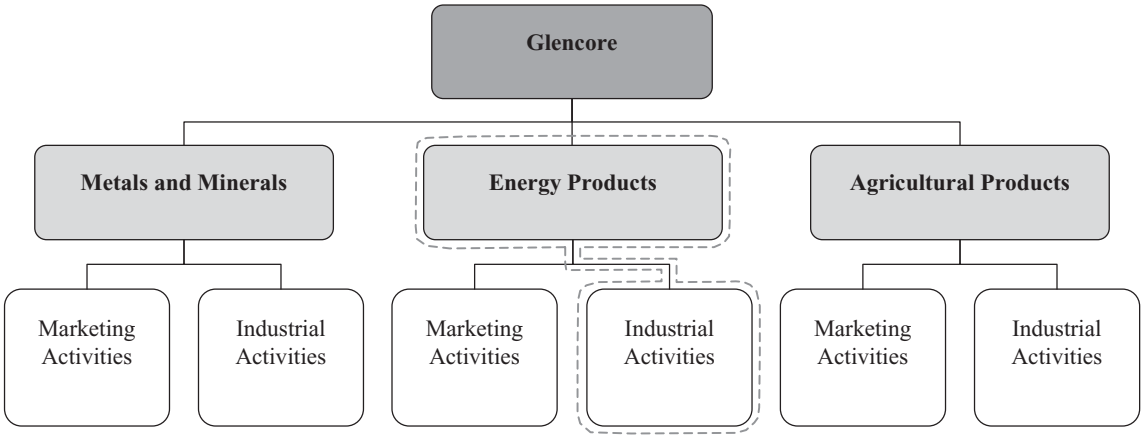
The coal/coke group logistical operations are further supported by access to the following storage/blending capacity that enable Glencore to meet specific customer requirements and optimise earnings:

- Calenturitas handling facility with capacity to crush 15 to 17 million MT per annum and a train loading and blending capacity of 22 to 23 million MT per annum.
- Richards Bay Coal Terminal and Maputo Port: Through its investment in Xstrata and Shanduka, Glencore has direct access to Richards Bay Coal Terminal in South Africa. Glencore also directly exports through the Maputo Port in Mozambique. Both of these terminals are natural blending facilities. Richards Bay Coal Terminal with approximately 9 million MT of stockpile capacity and Maputo with approximately 500k MT provide flexibility to stockpile material separately or alternatively on a single stockpile with increased capacity.
- Glencore also has access to facilities in ARA (Antwerp, Rotterdam and Amsterdam) and Russian ports.

Competitors

Glencore has no major competitors which share its integrated business model and operate worldwide and on its scale. Instead, its competitors are either producers which largely market their own product and have less geographic market depth and visibility, for example BHP Billiton or Anglo American plc, or companies that have relatively little production capacity and focus mainly on less integrated trading and/or consumer activities, for example Noble Group or power/utility companies.

Industrial activities (Energy Products business segment)



Oil commodity department (industrial activities, Energy Products business segment)

Overview

The table below summarises information about the key oil producing industrial assets as at 31 December 2010:

Company	Country	Commodity	Annual production capacity	Glencore's ownership interest	Remaining ownership interest	Any contractual relationship with Glencore
Controlled:						
Block I[1]	Equatorial Guinea	Oil and gas	—[2]	23.75%[3]	38% Noble Energy Inc. 27.55% Atlas Petroleum 5% GEPetrol 5.66% Osborne Resources Limited	Purchase agreements[4]
Block O[1]	Equatorial Guinea	Oil and gas	—[5]	25%[3]	45% Noble Energy Inc. 30% GEPetrol	Purchase agreements[4]
Non-controlled:						
Various oil producing subsidiaries of RussNeft	Russia	Oil	250,000 bbls/day	40-49%	51-60% RussNeft	Purchase agreements

Notes:

(1) Blocks I and O are both parts of The West African Oil Assets' portfolio. These investments are structured as unincorporated joint ventures, in which each partner receives and markets its share of production.

(2) First production is scheduled for January 2012 at an estimated rate of 50,000 barrels per day.

(3) Glencore is entitled to a greater share of oil production than its percentage ownership of the joint venture as it recovers the carried interest/loans in relation to some of its partners.

(4) To be entered into not less than three months prior to first production.

(5) First production scheduled for the first quarter of 2014 at an estimated rate of 37,500 barrels per day.

Financial information

The table below sets out selected financial information on the controlled industrial activities of the oil industrial assets for the years ended 31 December 2008, 31 December 2009 and 31 December 2010. The information in this table has been extracted without material adjustment from Glencore's accounting books and records, which are unaudited:

	2008	2009	2010
	(U.S.$ million)		
	(Unaudited)		
Oil/oil products			
Revenue	1,672	534	253
Adjusted EBITDA pre-exceptional items[1][2]	32	57	(12)
Adjusted EBIT pre-exceptional items[1][2]	28	49	(24)
Capex	350	144	514

Notes:

(1) Excludes share of income from associates and dividends.

(2) 2009 and 2010 includes U.S.$18 million and U.S.$40 million, respectively, of oil related exploration expenditures which were not able to be capitalised.

THE WEST AFRICAN OIL ASSETS:

Glencore has equity stakes in two oil and gas production sharing contracts offshore Equatorial Guinea, West Africa (Block I and Block O (the "Blocks")). Significant oil and gas reserves have been discovered in these Blocks following the initial discovery made in Block O in 2005. Two of the discoveries in the Blocks (Aseng and Alen) are under development and are adjacent fields that will benefit from shared infrastructure. In addition to the two development projects, there have been five other discoveries in the Blocks (Carmen, Diega (A-sand), Diega (B-sand), Felicita and Yolanda) and several similar prospects that remain to be drilled. To date, of the 11 exploration or appraisal wells drilled, ten have been successful. First oil is expected from the Block I Aseng field in the first quarter of 2012. Production in the Block O Alen field is expected to commence in the first quarter of 2014.

Blocks I and O form a key part of the Glencore exploration and production portfolio which also includes equity stakes in a further two blocks in Equatorial Guinea, two blocks in Cameroon, two blocks in Mali and one block in the Democratic Republic of Congo. The latest estimated reserves and resources for the Block O and I licences are as follows:

	Reserves (MMstb)[1]								
	Gross field			Glencore working interest[2]			Glencore net entitlement[3]		
	1P	2P	3P	1P	2P	3P	1P	2P	3P
Aseng field[4]	97	113	131	23	27	31	27	30	32
Alen field	45	82	128	11	20	32	10	17	26

Notes:

(1) As at 31 December 2010. The reserves and resources information set out above were reviewed and approved by Gordon R Taylor of RPS, has been prepared in accordance with PRMS and has been extracted without material adjustment from the RPS Report in Section XIV: "Independent Technical Reports".

(2) Glencore working interest in Block O is 25 per cent. and Glencore working interest in Block I is 23.75 per cent.

(3) Glencore's net entitlement is its share of cost oil and profit oil calculated using the product sharing agreement terms.

(4) Includes oil and condensate.

	Block I and Block O contingent resources (on-block)[1]					
	Gross field			Glencore working interest[2]		
	1C	2C	3C	1C	2C	3C
Liquids (MMstb)[3]						
Yolanda[4]	3.3	5.2	7.5	0.8	1.2	1.8
Felicita[4]	1.8	3.2	5.5	0.4	0.8	1.4
Diega (A-Sand)[4]	3.3	6	10	0.8	1.4	2.4
Diega (B-Sand)[4][5]	24	52	99	5.7	12	24
Carmen (B-Sand)[4]	5.1	10	20	1.3	42	4.9
Gas (bscf)						
Aseng	419	519	640	100	123	152
Alen	471	850	1,326	118	213	332
Yolanda	393	506	640	93	120	152
Felicita	49	71	104	12	18	26
Diega (A-Sand)	122	176	249	29	42	59
Diega (B-Sand)[5]	46	94	193	11	22	46
Carmen (B-Sand)	24	39	64	6	10	16

Notes:

(1) As at 31 December 2010. The reserves and resources information set out above were reviewed and approved by Gordon R Taylor of RPS, has been prepared in accordance with PRMS and has been extracted without material adjustment from the RPS Report in Section XIV: "Independent Technical Reports".

(2) Glencore working interest in Block O is 25 per cent. and Glencore working interest in Block I is 23.75 per cent.

(3) Includes oil and condensate.

(4) Yolanda and Diega (A-Sand) are 100 per cent. in Block I: Felicita and Carmen (B-Sand) 100 per cent. in Block O: Diega (B-Sand) is 90 per cent. in Block I and 10 per cent. in Block O.

(5) Glencore working interest assumes a 9/10 split between Block I and Block O.

	Block I and Block O prospective resources (on-block)(Unrisked)[1]									
	In-place			Recoverable						
	Gross			Gross			Glencore working interest[2]			
	P90	P50	P10	P90	P50	P10	P90	P50	P10	GpoS (%)
STOIIP (MMstb)										
Arabella[3][4]	0	0	0	0	0	0	0	0	0	0
Adriana NE[3]	0	0	0	0	0	0	0	0	0	0
Sarah A[3]	53	78	111	16	31	56	3.8	7.4	13.3	29
Isidora[3]	33	58	99	10	23	50	2.4	5.5	11.9	33
Regina A[3]	24	49	97	7	20	49	1.7	4.8	11.6	42
Sofia[3]	26	58	126	8	23	63	1.9	5.5	15	47
Carla[3][4]	210	400	749	63	160	375	15.4	39	91	23
CIIP (MMstb)										
Arabella	13	23	39	3.9	9.2	20	1	2.3	5	44
Adriana NE	5.2	14	36	1.6	5.6	18	0.4	1.4	4.5	47
Sarah A	6.7	10	15	2.0	4.0	7.5	0.5	1.0	1.8	29
Isidora	4.6	8.1	14	1.4	3.2	7.0	0.3	0.8	1.7	33
Regina A	3.3	6.8	14	1.0	2.7	7.0	0.2	0.6	1.7	42
Sofia	3.6	8.2	18	1.1	3.3	9.0	0.3	0.8	2.1	47
Carla	29	56	107	8.7	22	54	2.1	5.4	13.2	23
Gas (bscf)[5]										
Arabella	189	325	553	142	260	470	35	65	117	44
Adriana NE	76	198	514	57	158	437	14	40	109	47
Sarah A	118	173	245	89	138	208	21	33	49	29
Isidora	58	102	175	44	82	149	10	19	35	33
Regina A	42	86	172	32	69	146	8	16	35	42
Sofia	46	103	224	35	82	190	8	19	45	47
Carla	369	707	1,327	277	566	1,128	68	138	275	23

Notes:

(1) As at 31 December 2010. The reserves and resources information set out above were reviewed and approved by Gordon R Taylor of RPS, has been prepared in accordance with PRMS and has been extracted without material adjustment from the RPS Report in Section XIV: "Independent Technical Reports".

(2) Glencore working interest in Block O is 25 per cent. and in Block I is 23.75 per cent.

(3) Sarah A, Isidora, Regina A and Sofia are 100 per cent. in Block I: Adriana NE 100 per cent. in Block O: Arabella 90/10 Block O/Block I, Carla 50/50 Block O/Block I.

(4) Glencore interest for Arabella and Carla are weighted averages of block working interests.

(5) Gas volumes include inerts.

RPS Energy Limited has carried out an independent verification of Glencore's economic valuation of the West African Oil Assets. Further details of this economic valuation are set out in the RPS Report in Section XIV: "Independent Technical Reports".

Block I:

The Block I licence area holds the Aseng oil field and the Yolanda gas condensate field, in addition to part of the Alen gas condensate field (shared 95 per cent./5 per cent. between Block O and Block I, respectively) and the Diega oil and gas discovery (shared approximately 10 per cent./90 per cent. between Block O and Block I, respectively). Numerous prospects have also been identified from 3D seismic data, which are analogous to the existing discoveries and fields and have a combined P10 estimated prospective resource of 464 million bbls of liquids and 1,281 bscf of wet gas.

Block I is operated by Noble Energy EG Ltd. ("Noble Energy"), which is part of the Noble Houston group of companies. Noble Houston is an U.S.-based independent energy company listed on the New York Stock Exchange.

The Aseng field was originally discovered in 2007 and appraised in 2008. Latest independent estimates of recoverable reserves on a 3P basis are 131 million bbls of oil and condensate liquids with a further 640 bcf of natural gas as contingent resources on a 3C basis. The Plan of Development ("POD") was approved in

June 2009 and development drilling on the field completed in September 2010. All completion operations are expected to be finished by early April 2011. The final development will comprise a sub-sea tie-back of the production wells via a fixed Floating Production, Storage and Off-take vessel ("FPSO") with gas and water re-injection for enhanced recovery from the reservoir.

First oil is expected from Block I in the first quarter of 2012, with daily production of 50,000 bbls per day from five production wells for the first two years, with production slowly declining thereafter. The FPSO is scheduled for arrival in September 2011. The total development costs of Aseng are estimated at U.S.$1.33 billion, with U.S.$819 million (gross) incurred to 31 December 2010 and the balance to be spent during 2011. Pursuant to the Farmout Agreement, Glencore's share (54 per cent.) of the remaining development capex is expected to be U.S.$276 million. Under the Block I production sharing agreement, each party has the right to lift their own share of the oil. The terms and process for the off-take of the oil produced will be governed by a lifting agreement which will be finalised between the equity partners not less than three months prior to first production.

Glencore has a 23.75 per cent. equity stake in Block I, which was acquired through a farm-out agreement (the "Farmout Agreement") with Atlas Petroleum International Limited ("Atlas"). The remaining equity interests are held by Noble Energy (38 per cent.), Atlas (27.6 per cent.), Osborne Resources Limited (5.7 per cent.) and the National Oil Company of the Republic of Equatorial Guinea (the Compañía Nacional De Petróleos de Guinea Ecuatorial or "GEPetrol") (5 per cent.). Under the terms of the Farmout Agreement, Glencore agreed to fund Atlas's share of costs to first oil in return for a 25 per cent. equity interest in Block I (of which a 1.25 per cent. revenue interest was subsequently assigned to GEPetrol) and the rights to market and recover such costs from Atlas's share of oil.

Glencore's exploration spending of U.S.$170 million has been incurred on Block I to 31 December 2010.

The full amount of the loan to Atlas Petroleum and accrued interest thereon will be repaid from Atlas Petroleum's 27.6 per cent. share of oil following commencement of production. As at 31 December 2010, the outstanding loan balance to Atlas Petroleum, including accrued interest, was U.S.$476 million.

Block O:

The Block O licence area holds 95 per cent. of the Alen gas condensate field, as well as an estimated 10 per cent. of the Diega oil and gas discovery, and 100 per cent. of the Felicita gas condensate and Carmen gas and oil discoveries. As with Block I, there are numerous prospects identified from 3D seismic data, which are analogous to the existing discoveries and fields and have a combined P10 prospective resource of 252 million bbls of liquids and 1,448 bscf of wet gas.

The Alen field was discovered in 2005 and appraised in 2007 with independently estimated reserves on a 3P basis of 128 million bbls of condensate and further contingent resources of 1,326 bcf of natural gas on a 3C basis.

The POD for the Alen field was approved by the Equatorial Guinea Ministry of Mines Industry and Energy on 11 January 2011. The field will have two bridge-linked platforms, which will be connected via sub-sea umbilicals to three production wells. Gas will initially be delivered to the platform where it will be stripped of condensate and re-injected back into the field via three sub-sea injection wells. The condensate liquids will be sent via a separate sub-sea pipeline to the Aseng FPSO for storage and off-take. First production is scheduled for the first quarter of 2014 with daily production anticipated to be 37,500 bbls per day for three years, with production declining slowly thereafter. Total development costs for Block O are estimated at U.S.$1.37 billion, to be incurred between 2010 and 2013, with U.S.$26 million incurred to 31 December 2010.

Glencore has a 25 per cent. equity stake in Block O, with the remaining equity being held by Noble Energy (45 per cent.) and GEPetrol (30 per cent.). In addition to its 25 per cent. equity stake, Glencore is carrying 3.6 per cent. of the share of costs of GEPetrol throughout the life of the project by way of an advance to GEPetrol. The costs of exploring and developing the asset are shared between Glencore (28.6 per cent.), Noble Energy (51.4 per cent.) and GEPetrol (20 per cent.).

Glencore's exploration spend on Block O to 31 December 2010 on a gross basis has been U.S.$71 million. Further exploratory drilling will continue in 2011 and 2012 to evaluate additional prospects and prove the reserves at the Carmen, Diega and Felicita fields.

As the Alen field straddles Block O and Block I, the equity interest holders in Block I will be compensated for gas condensate extracted from reserves within the Block I boundary under the terms of a unitisation

agreement which has been agreed between the partners. An FPSO cost-sharing agreement has also been finalised between the partners to cover the cost-sharing benefits resulting from the Alen field development utilising the Aseng FPSO and associated facilities for condensate storage and off-take.

As with Block I, the Block O production sharing agreement provides that each party has the right to lift their own share of the condensate. This process will be captured in a lifting agreement to be signed by the equity partners.

Block O is also operated by Noble Energy.

OAO RUSSNEFT:

Glencore has invested in the Russian upstream market with its partner OAO RussNeft, taking ownership interests in a diversified portfolio of oil producing assets. OAO RussNeft owns and operates a number of oil licences stretching from the Volga river in the west to the Siberian plains in the east. Glencore has acquired between 40 and 49 per cent. of the equity in a number of oil production subsidiaries of OAO RussNeft. OAO RussNeft is currently owned as to 49 per cent. by a number of associated companies of Mikhail Gutseriev, 49 per cent. by Sistema JSFC and 2 per cent. held by Sberbank of Russia, through its subsidiary.

The current aggregate production capacities of 100 per cent. of OAO RussNeft's operating subsidiaries comprise approximately 250,000 bbls per day (equivalent to 12.9 million MT per annum).

OAO RussNeft Production	**No of fields**	**2008**	**2009**	**2010**
			('000 MT)	
West Siberian Group	23	7,837	6,970	6,872
Urals Group	44	3,931	3,765	3,956
Volga Group	67	2,080	1,763	1,773
Central Siberian Group	8	397	189	288
Total	**142**	**14,246**	**12,687**	**12,889**

As at 1 January 2010, the latest independently assessed 2P reserves of OAO RussNeft production subsidiaries amounted to 2,030 million bbls. Assets in the subsidiaries include producing properties with an oil refining capacity of 4.8 million MT per annum.

At the end of 2010, OAO RussNeft's entire debt position (comprising U.S.$6.1 billion of debt owed to Glencore and Sberbank of Russia) was restructured, extending the loan periods out to 2020 and lowering the interest rates for both lenders, which will assist OAO RussNeft to free up additional cash flows for investment projects aimed at increasing its production. Glencore's loan portfolio was restated into one secured loan facility of U.S.$2,080 million, bearing an interest of nine per cent. per annum, with three per cent. paid quarterly and the remaining six per cent. payable along with the principal. Repayment is expected in monthly instalments over a three year period commencing in the fourth quarter of 2017, but in any event not before repayment of the debt owing to Sberbank of Russia. The facility is secured by various pledges of shares of members of the OAO RussNeft group. See paragraph 18.13 of Section X: "Additional Information" for further details in this respect.

Glencore also benefits from a renewable one year off-take agreement pursuant to which Glencore is entitled to 100 per cent. of the crude oil and oil products produced by these assets destined for export markets.

Coal/coke commodity department (industrial activities, Energy Products business segment)

Overview

The table below summarises information about the key coal producing industrial assets as at 31 December 2010:

Company	Country	Commodity	Annual production capacity	Glencore's ownership interest	Remaining ownership interest	Any contractual relationship with Glencore
Controlled:						
Prodeco	Colombia	Coal	14.5 million MT[1]	100%	—	Marketing agreement
Shanduka Coal	South Africa	Coal	9 million run of mine MT	70%	30% Shanduka Resources (Pty) Limited[2]	Purchase agreements, marketing agreements
Non-controlled:						
Xstrata	UK/Switzerland	Coal	136,900 KT	34.5%	65.5% publicly traded on London Stock Exchange and SIX	Purchase agreements, agency agreements, marketing agreements, distribution agreements
Umcebo[3]	South Africa	Coal	7.2 million run of mine MT	43.66%[4]	56.34% privately held	Marketing agreement

Notes:

(1) Planned expansion to 20.7 million MT by 2015.

(2) Shanduka Resources recently announced its plans to acquire 51.9 per cent. of coal mining and services group Sentula Mining Limited in exchange for its 30 per cent. stakes in each of Kangra Coal and Shanduka Coal. The transaction is subject to various conditions precedent and is expected to be concluded towards the end of July 2011.

(3) Completion of the acquisition of this investment will not occur earlier than July 2011.

(4) Pending completion and subject to working capital and other adjustments which could potentially increase Glencore's ownership interest.

Financial information

The table below sets out selected financial information on the key controlled coal industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010. The information in this table has been extracted without material adjustment from Glencore's accounting books and records, which are unaudited:

	2008	2009	2010
	(U.S.$ million) (Unaudited)		
Prodeco			
Revenue	804	790	954
Adjusted EBITDA pre-exceptional items	426	218	278
Adjusted EBIT pre-exceptional items	349	206	199
Statutory tax rate	33%	33%	33%
Capex	309	242	277
Other			
Revenue	427	277	292
Adjusted EBITDA pre-exceptional items[1]	201	96	47
Adjusted EBIT pre-exceptional items[1]	172	67	14
Capex	39	7	27
Total			
Revenue	1,231	1,067	1,246
Adjusted EBITDA pre-exceptional items[1]	627	314	325
Adjusted EBIT pre-exceptional items[1]	521	273	213

Note:

(1) Excludes share of income from associates and dividends.

Production

The tables below set out the production of the controlled coal industrial assets for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

	Year ended 31 December								
	2008			2009			2010		
Production	Production and buy-in coal	Production	Buy-in coal	Production and buy-in coal	Production	Buy-in coal	Production and buy-in coal	Production	Buy-in coal
					('000 MT)				
Prodeco	10,500	9,100	1,400	11,500	10,500	1,000	10,200	10,000	200
Shanduka Coal	12,260	11,719	541	12,114	11,761	353	9,474	9,052	422
Total production	22,760	20,819	1,941	23,614	22,261	1,353	19,674	19,052	622

Reserves and resources

The table below sets out the total attributable mine reserves and resources summary for the coal industrial assets as extracted from the Prodeco Report set out in Section XIV: "Independent Technical Reports":

		Coal reserves			Coal resources			
Prodeco[1]	Commodity	Proved	Probable	Total	Measured	Indicated	Inferred	Total
					('000 MT)			
Calenturitas[2]	Coal	113,000	96,000	209,000	170,000	160.000	70,000	400,000
La Jagua[3]	Coal	106,000	22,000	128,000	117,000	23,000	—	140,000
Total	Coal	219,000	118,000	337,000	287,000	183,000	70,000	540,000

Notes:

(1) As at 31 December 2010. The information in the table above in relation to mineral reserves and resources is in compliance with the JORC Code and has been extracted without material adjustment from the Prodeco Report in Section XIV: "Independent Technical Reports".

(2) Remaining mine life: expected to be 20 years. Expiry date of relevant mining/concession licences: 2035.

(3) Remaining mine life: expected to be approximately 20 years. Expiry date of relevant mining/concession licences: CET and CDJ expiring between 2027 and 2038 and CMU expiring in 2014.

Competent Persons: The mineral reserves estimates set out above were reviewed and approved by Grant Walker of MMC. The mineral resources estimates set out above were reviewed and approved by Kerry Whitby of MBGS. The mineral reserves and resources estimates have been prepared in accordance with the JORC Code. Mr Walker and Mr Whitby are each Competent Persons as defined by JORC and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking.

		Coal reserves			Coal resources			
Shanduka Coal[1][2]	Commodity	Proved	Probable	Total	Measured	Indicated	Inferred	Total
					('000 MT)			
Graspan	Coal	24,010	0	24,010	26,410	0	0	26,410
Townlands	Coal	14,630	0	14,630	16,090	0	0	16,090
Steelcoal reserve	Coal	9,010	0	9,010	22,680	0	0	22,680
Lakeside	Coal	4,490	0	4,490	7,980	0	0	7,980
Leeuwfontein	Coal	2,610	0	2,610	6,040	0	0	6,040
Springlake	Coal	14,100	0	14,100	5,679	2,772	6,539	14,990
Springboklaagte	Coal	0	0	0	39,905	51,970	2,765	94,640

Notes:

(1) As at 31 December 2010.

(2) Remaining mine life: individual mining operations have expected lifes ranging from five to 12 years, based on their reserves. However, the Springboklaagte deposit extends Shanduka Coal's expected life by approximately 20 to 25 years. Expiry date of relevant mining/concession licenses: different for each mine, ranging from January 2017 to December 2021 in respect of Graspan, Townlands, Steelcoal reserve, Lakeside and Springlake. Leeuwfontein is still what is known as an "old order right" or mining license, with applications pending for conversion into a "new order right" or mining license (only upon conversion will the expiry date be known). Springboklaagte is still a prospecting right, which are granted for five year periods and are renewable for a further three year period. The main prospecting right expires on 3 August 2011 and another smaller prospecting right (Kromdraai South) expires on 23 January 2012. Both are expected to be renewed.

Competent Persons: the mineral reserves and resources estimates set out above were reviewed and approved by NJ Denner and K Dippenaar of Gemecs (Pty) Ltd. The reserves and resources estimates have been prepared in accordance with SAMREC. Mr Denner and Mr Dippenaar are both Competent Persons as defined by SAMREC and each have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking.

PRODECO:

Prodeco, a wholly owned subsidiary of Glencore, comprises Glencore's Colombian export thermal and metallurgical coal mining operations and associated infrastructure. It is involved in the exploration, production, transportation and shipment of high grade thermal and metallurgical coal from its mines to markets principally in Europe and the Americas. Prodeco consists of two open pit coal mining operations (the Calenturitas mine and the La Jagua complex), export port facilities (Puerto Zuñiga, which is fully operational, and Puerto Nuevo, which is under construction) and a 39.76 per cent. share in a company which holds the concession to the railway linking Prodeco's mines to the export ports.

Prodeco has a low-cost structure as it operates open cut mines and benefits from a superior quality coal which requires no washing. As at 31 December 2010, Prodeco had a saleable reserve base in excess of 337 million MT, with resources (measured, indicated and inferred) in excess of 540 million MT. Prodeco is currently the third largest producer of export thermal coal in Colombia, behind Cerrejón and Drummond Company, Inc.

Prodeco is going through a period of significant expansion, as coal production is planned to increase from 10 million MT per annum in 2010 to 19.9 million MT in 2013 and to 20.7 million MT per annum by 2015. This expansion, at an estimated capital cost of approximately U.S.$2.6 billion (of which approximately U.S.$1.5 billion has been spent on mining concessions, mining equipment, transport, port and other infrastructure as at 31 December 2010), is aimed at exploiting Prodeco's existing extensive reserve base to take advantage of demand for import coal in Europe and the Americas. The planned expansion is expected to have a significant positive impact on Prodeco's future revenues, cost structure and earnings. The ramp-up of production is dependent on fleet delivery, staffing and training and Glencore has been informed by the suppliers of certain items of equipment ordered as part of the ramp-up that delivery of those items will be delayed due to the infrastructure damage caused by the recent earthquake and tsunami in Japan. Glencore does not believe that these delays will have a material impact.

Prodeco has operational advantages in owning all its key operational infrastructure, including a railway (through its part ownership of the rail infrastructure concession and full ownership of rolling stock) and all mining equipment and facilities at its mine sites. Prodeco also owns Puerto Nuevo S.A., which is currently building a new public port in the area replacing Puerto Zuñiga when completed. Glencore's investment in such infrastructure has laid the foundation for Prodeco's low-cost mining operations.

Calenturitas:

The Calenturitas open pit coal mine is near the town of La Loma, in the Cesar State, northern Colombia, approximately 200 kilometres south of the Caribbean coast town of Santa Marta.

Prodeco was granted a 15-year mining concession licence for the Calenturitas mine in 2001 for a concession area of 6,677 hectares. In July 2004, Prodeco commenced production, extracting high-quality export thermal coal at the Calenturitas mine. In 2007, the mining concession was extended to 2035.

Calenturitas is an open cut mine from which low sulphur, high energy steam coal is extracted. The coal handling facility, which was completed in March 2009 at a cost of U.S.$65.2 million, has the capacity to crush 15 to 17 million MT per annum and a train loading and blending capacity of 22 to 23 million MT per annum. The blending capability of the coal handling facility enables Prodeco to blend coal to meet specific customer requirements, which enables it to optimise revenue streams.

Production of high-quality export thermal coal at the Calenturitas mine increased from 4.7 million MT in 2008 to 5.7 million MT in 2009. Production for the year ended 31 December 2010 was 5.2 million MT, hampered during the year mainly by extreme rain events (more than double average annual rainfall). An expansion of production of export thermal coal to 13.6 million MT per annum is planned to be completed by 2015. All the required infrastructure at the mine site is expected to be in place by the first half of 2011, with the ramp-up of production dependent on fleet delivery, staffing and training.

The Calenturitas mine's resource base as at 31 December 2010 was 400 million MT. The life of mine is currently expected to be 20 years.

La Jagua Complex:

The La Jagua open pit coal mining complex is located 20 kilometres east of Calenturitas in the Cesar State, northern Colombia. The complex is governed by five coal mining concessions held by separate companies, namely Carbones de La Jagua, S.A. (“CDJ”), Consorcio Minero Unido, S.A. (“CMU”) and Carbones el Tesoro, S.A. (“CET”), all of which are wholly owned by Glencore.

The CDJ mine commenced operations in 1995 under the ownership of CI Carbones del Caribe, S.A. and Glencore purchased the mine in January 2005. The CMU mine commenced operations in 1990 under private ownership and was acquired by Glencore in August 2006. The CET mine commenced operations in 1997 under private ownership and was purchased by Glencore in May 2007.

The mining licences held by CDJ and CET expire between 2027 and 2038, while CMU’s concession expires in 2014. Management expects that CMU’s licence will be extended as it was included in the mine plan for the La Jagua complex approved by the Colombian government’s mining agency (“Ingeominas”), which is valid until 2025.

The operations of CDJ, CMU and CET have been consolidated into one operation, with the approval of Ingeominas. This consolidation provides the La Jagua complex with operational efficiencies and allows for the complete reserve base to be mined, which would otherwise not have been possible if the five concessions had been mined separately. Through this consolidation, Prodeco has increased the minable reserves at this site by approximately 50 per cent.

Similar to the Calenturitas mine, the La Jagua complex is an open cut operation. However, in addition to low sulphur and high energy steam coal, high volatile metallurgical coal is also extracted at this site. Crushed coal is typically transported by truck to the new coal handling facility at the Calenturitas mine site where it is loaded into rail wagons and transported by rail to the port facility at Santa Marta. However, some coal is transported directly by truck to the port facilities at Santa Marta, but this is less common since the commissioning of the coal handling facility at Calenturitas in 2009.

Combined production of high-quality export thermal coal of the three mines comprising the La Jagua complex increased from 4.4 million MT in 2008 to 4.8 million MT in 2009. Production for the year ended 31 December 2010 was 4.8 million MT. Production in 2010 was also negatively affected by the extreme rainfalls in the country. As with Calenturitas, all the required mine site equipment and infrastructure is expected to be in place by the first half of 2011, with the ramp-up of production dependent on fleet delivery, staffing and training. The La Jagua complex is expected to be operating at a capacity of 7.1 million MT per annum by 2011.

The La Jagua resource base as at 31 December 2010 was 140 million MT. The life of mine is currently expected to be approximately 20 years.

Fenoco Railway:

In 2006, Prodeco, together with four other Colombian coal producing companies (Drummond Company, Inc., Carbones del César, S.A., Carbones del Caribe, S.A., and Carbones de los Andes, S.A.), acquired Fenoco S.A. (“Fenoco”). Prodeco’s current shareholding in Fenoco is 39.76 per cent.

Fenoco is the holder of a 30-year railway concession (expiring in 2029) which links Santa Marta and the city of Chiriguana in the Cesar State. The railway passes within close proximity of Prodeco’s mining operations and is used primarily for coal transportation, with the intention that it will be available for transporting other commodities in the future. Fenoco has entered into take or pay commitments with its shareholders in return for guaranteed availability and volume of annual rail capacity. The term of such commitment is ten years, but can be extended or reduced in connection with a mine’s expected life.

Rolling stock for the railway is provided by Fenoco users according to their individual requirements. As at 31 December 2010, Prodeco owned 18 locomotive engines and 700 heavy haul wagons providing 14.5 million MT per annum of rail capacity between Calenturitas and Santa Marta, with anticipated capacity of 15.9 million MT per annum in 2011 (based of existing and expected operating conditions). Each train load between the mine and the port replaces 180 highway trucks a day, reducing costs and increasing capacity, whilst also improving safety and the local environment. The railway’s coal transporting capacity is currently 45-50 million MT per annum.

The Fenoco shareholders have committed to expanding the railway to increase capacity to at least 80 million MT per annum, with the majority estimated to be completed by the end of 2011, subject to

government approvals. The total cost of the expansion is expected to be approximately U.S.$250 million (to be funded *pro rata* by the Fenoco shareholders between March 2006 and completion of the expansion, of which approximately U.S.$120 million had been spent as at 31 December 2010).

Prodeco has entered into a shareholders' agreement in relation to the management of Fenoco. Prodeco is entitled to appoint two out of five board members. It has a take or pay agreement with Fenoco with guaranteed capacity of 14.5 million MT for the year ended 31 December 2010.

Port facilities:

The two port facilities used by Prodeco for exporting coal are located near the city of Santa Marta on the Caribbean coast of Colombia; Puerto Zuñiga (owned by Prodeco) and Carbosan (independently owned). Prodeco is building a new port, Puerto Nuevo (wholly owned by Prodeco), to replace Puerto Zuñiga, with increased capacity.

Puerto Zuñiga is adjacent to the Simón Bolívar airport in Santa Marta and was historically operated under a private concession awarded by the Colombian government; this expired in March 2009, meaning that the fixed marine assets (principally the pier) reverted to the Colombian government. Prodeco was granted a temporary concession to operate Puerto Zuñiga, which was subsequently renewed in March 2010 and again in March 2011, each time for a year. The renewal of such temporary concession by the Colombian government is subject to Prodeco's compliance with the timetable submitted for the construction of a new port facility, Puerto Nuevo, and is expected to be granted annually until Puerto Nuevo is operational.

Puerto Nuevo, which will have an estimated design capacity of approximately 27 million MT per annum, is being constructed adjacent to the existing Drummond port to comply with the new government regulations on loading methods, which became effective from July 2010. Given the time required to construct a new port and install new infrastructure, Prodeco and all other Colombian coal port operators have been unable to fully comply with the new regulation. However, Glencore considers it extremely unlikely that the new regulation will be enforced before Puerto Nuevo is commissioned, on the basis that it has already received three extensions to its permission to use Puerto Zuñiga (which is not compliant with the new regulations and is to be replaced with Puerto Nuevo) from the Colombian government. Puerto Nuevo will lower Prodeco's costs due to its new direct loading system compared to the crane and barge operations used at Puerto Zuñiga today. It will be an all weather port, which is expected to result in additional savings for Prodeco.

In the year ended 31 December 2010, Prodeco had total port capacity of 19.7 million MT, comprising 17 million MT at Puerto Zuñiga and 2.7 million MT at the independently owned port, Carbosan in Santa Marta. Prodeco's contractual port facility arrangements with the Carbosan port are on a take or pay basis, the terms of which expire in 2013. Once Puerto Nuevo is commissioned (expected in the first half of 2013), Prodeco's total port capacity will increase to approximately 27 million MT per annum.

Other:

Prodeco has been impacted by some industrial activity in recent years, including a 38-day strike by employees at one of La Jagua's concessions in 2010. The level of union membership amongst Prodeco's employees, however, is generally low (except at CDJ, where 82 per cent. of the total direct workers are unionised). The strike at La Jagua was by the employees of CDJ and impacted this concession only. Management foresees an increasing level of membership in future years and it is likely that strike action will remain a key business risk. See "The maintenance of positive employee relations and the ability to attract and retain skilled workers is key to the successful operation of Glencore's industrial activities" in the Risk Factors in Section I: "Information Glencore", for further risks in this respect.

In addition, with Puerto Nuevo being constructed adjacent to the Drummond Port, discussions are ongoing concerning the common use of the access channel and turning basin for the ports. Opposition has been recently lodged with respect to some of Prodeco's requested amendments to its port concession. Prodeco does not consider that this opposition will have a material impact upon its construction timetable.

SHANDUKA COAL:

Glencore owns 70 per cent. of Shanduka Coal. The remaining 30 per cent. of Shanduka Coal is owned by Shanduka Resources (Pty) Limited, a South African Black Economic Empowerment entity. Shanduka Resources recently announced it plans to acquire 51.9 per cent. of coal mining and services group Sentula Mining Limited in exchange for its 30 per cent. stakes in each of Kangra Coal and Shanduka Coal. The

transaction is subject to various conditions precedent and is expected to be concluded towards the end of July 2011.

Shanduka Coal owns 100 per cent. of the Graspan Colliery and the Middelburg Townlands Colliery and Extension, located near Middelburg, South Africa, as well as the Springlake Colliery located near Newcastle, South Africa. These operating mines have an aggregate annual production capacity of 9 million run of mine MT. Shanduka Coal also owns 100 per cent. of the Leeuwfontein and Lakeside Collieries located near Kendal, South Africa, which are under care and maintenance pending further exploration, and the Bankfontein Colliery, the reserves of which have been exhausted and which is being prepared for closure. During 2009, Shanduka Coal acquired a 50 per cent. interest in the Springboklaagte deposit in South Africa, providing Shanduka Coal with an additional 95 million MT of attributable resources. The total reserves and resources (as at 31 December 2010) of Shanduka Coal (including attributable resources of Springboklaagte) are 69 million MT of reserves and 189 million MT of resources. Shanduka Coal's individual mining operations have expected lives ranging from five to 12 years, based on their existing reserves. However, the Springboklaagte deposit extends Shanduka Coal's expected life by approximately 20 to 25 years. In addition, Shanduka Coal is currently evaluating a number of other potential acquisitions to expand its resource base.

Shanduka Coal produces both higher quality thermal and anthracite coal suitable for the export market and lower quality thermal coal sold largely to Eskom, the South African parastatal electric utility entity.

Under the terms of a long-term marketing agreement, Glencore purchases Shanduka Coal's coal destined for the export market on a principal basis. In the year ended 31 December 2009 and 2010, Shanduka Coal sold 2.5 million MT and 1.5 million MT to Glencore, respectively. Glencore sells the coal both to domestic customers in South Africa and to the export market through the Richards Bay Coal Terminal, the largest export coal terminal in South Africa, the Port of Durban in South Africa and the Maputo port and Matola Coal Terminal located in Mozambique. Shanduka Coal currently has 439k MT per annum of committed export entitlement at Richards Bay Coal Terminal. In addition, during 2010, Glencore entered into a five-year commitment to export 1.7 million MT of coal per annum through the Maputo port and the Matola Coal Terminal.

Glencore also acts as marketing agent for Shanduka Coal's third party domestic coal sales, including its sales of lower quality coal to Eskom. In the years ended 31 December 2009 and 2010, Shanduka Coal sold 6.5 million MT and 6.0 million MT to third parties, respectively. Shanduka Coal is finalising an eight-year agreement with Eskom, against which Shanduka Coal is currently delivering 300k to 400k MT of coal per month to Eskom.

XSTRATA:

The coal/coke commodity department benefits from Glencore's relationship with Xstrata. Please refer to Section I: "Information on Glencore—Relationship and commercial arrangements with Xstrata" for further information on Xstrata.

UMCEBO:

In July 2010, Glencore agreed to acquire an effective 43.66 per cent. equity interest in Umcebo for an aggregate purchase price of ZAR908 million. The transaction is subject to certain conditions precedent, including the approval of the requisite regulatory authorities (the Department of Mineral Resources, the South African Competition Authorities and the South African Reserve Bank) and consent from certain third parties. Glencore's effective interest in Umcebo may increase due to certain purchase price adjustments included in the transaction agreements. In addition, Glencore has concluded an agreement with certain minority shareholders of a subsidiary of Umcebo to acquire their interests on closing of the transaction.

In recognition of its commitment to Umcebo, Glencore has, pending closing of the transaction and in order to facilitate Umcebo's funding needs, cash collateralised ZAR250 million of Umcebo's existing indebtedness. If the transaction is successfully implemented, the ZAR250 million will form part of the ZAR908 million purchase price and be converted into equity, with the result that Umcebo will be debt free. Should the transaction fail to close, the cash collateralised deposit will accrue interest and be repaid through a combination of coal deliveries by Umcebo to Glencore and proceeds realised from the sale of assets by Umcebo.

Subject to certain conditions precedent, Glencore will after the closing of the transaction be required to fund up to an additional ZAR646 million in the form of shareholder loans accruing interest at market related rates for the purposes of working capital, resource development and acquisitions, including the acquisition of the 47 per cent. interest in the Wonderfontein and Belfast projects that is held by a joint venture partner of Umcebo (Umcebo holds the other 53 per cent.). Glencore has also agreed with Umcebo that if Umcebo is able to purchase the abovementioned 47 per cent. interest in the Wonderfontein and Belfast projects from Umcebo's joint venture partner before the closing of the broader transaction, Glencore will fund that acquisition. If the broader transaction proceeds, this funding will be converted into a shareholders loan. If the broader transaction fails, the funding will either be applied to settle the purchase price for the 47 per cent. interest which Glencore will acquire from Umcebo or will be repaid by Umcebo to Glencore. The agreements with the vendors also provide that if the broader transaction fails, Glencore will, subject to certain conditions precedent, acquire from Umcebo its existing 53 per cent. interest in the Wonderfontein and Belfast projects.

A newly formed wholly owned and broad-based South African Black Economic Empowerment company has agreed to purchase an effective 26 per cent. equity interest in Umcebo. In order to facilitate this participation, including an amount of required third party bank funding, Glencore intends to provide a guarantee of up to ZAR250 million to such bank.

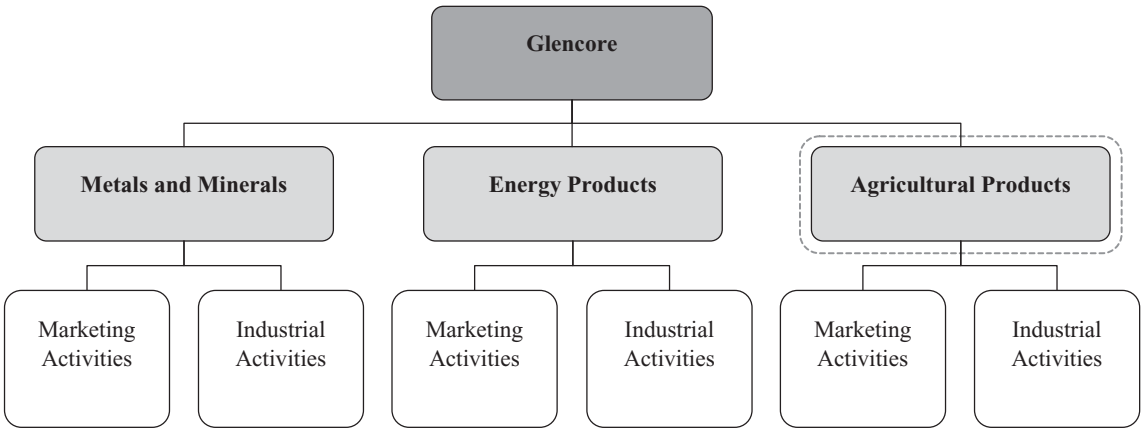
The transaction would secure access to an eventual 1.5 million MT of Richards Bay Coal Terminal Phase V export allocation and to long-life resources from South Africa's principal coal field in Mpumalanga, which has established infrastructure for the transport of export quality thermal coal. Glencore estimates attributable resources at Umcebo to be at least 860 million MT. Umcebo currently has three thermal complexes in operation (Middelkraal, Kleinfontein and Klippan), with an aggregate annual production capacity of 7.2 million run of mine MT. In addition, the Wonderfontein mine is scheduled to begin production in 2013, with a long-term annual production capacity of 3.6 million run of mine MT.

GLOBAL COAL LIMITED:

Glencore owns 19.7 per cent. of Global Coal Limited, which was founded by leading members of the world coal industry to promote the development of the coal markets through screen trading of standardised coal products via the globalCOAL trading platform. More than 80 million tonnes of physical thermal coal are traded annually on the globalCOAL trading platform by approximately 100 leading coal market participants.

Agricultural Products

Introduction (Agricultural Products business segment)



The Agricultural Products business segment focuses on the following commodities: grains (including wheat, maize and barley), oils/oilseeds, cotton and sugar. The activities of Glencore's Agricultural Products business segment are supported by investments in controlled and non-controlled storage, handling, processing and port facilities in strategic locations.

Selected key financial information in relation to the Agricultural Products business segment's marketing and industrial activities for the years ended 31 December 2008, 31 December 2009 and 31 December 2010 is set out below. This information has been extracted without material adjustment from Section VI: "Historical Financial Information" except where marked as unaudited. Unaudited information has been extracted without material adjustment from Glencore's accounting records.

	2008	2009	2010
	(U.S.$ million)		
Marketing Activities			
Revenue (unaudited)[1]	12,057	6,793	8,238
Adjusted EBITDA pre-exceptional items[2]	579	304	659
Adjusted EBIT pre-exceptional items[2]	579	304	659
Industrial Activities			
Revenue (unaudited)[1]	1,337	1,789	2,180
Adjusted EBITDA pre-exceptional items[2][3][4]	95	85	88
Adjusted EBIT pre-exceptional items[2][3][4]	84	48	39
Share of income from associates and dividends (excl. Xstrata)[4]	15	(7)	19
Capex	102	116	71
Total Agricultural			
Revenue	13,394	8,582	10,418
Adjusted EBITDA pre-exceptional items[2][5]	689	382	766
Adjusted EBIT pre-exceptional items[2][5]	678	345	717

Notes:

(1) Revenue is not split between Marketing and Industrial activities in the audited Historical Financial Information set out in Section VI of this document and is therefore marked as unaudited. Total segment and total Group revenue is audited.

(2) Includes corporate selling, general and administrative expenses, but excluding variable pool bonus accrual, which is recorded at group/corporate level.

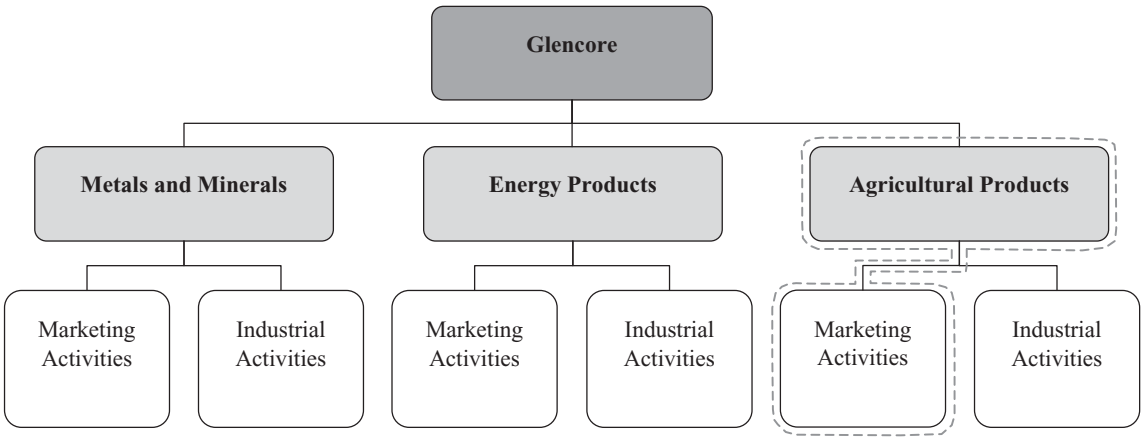
(3) Excludes share of income from associates and dividends.

(4) Adjusted EBITDA pre-exceptional items plus Share of income from associates and dividends and Adjusted EBIT pre-exceptional items plus Share of income from associates and dividends are audited.

(5) Includes share of income from associates and dividends.

The Agricultural Products business segment has approximately 946 employees globally (excluding individuals employed within Glencore's industrial or farming activities) with some 158 staff located at Glencore's Rotterdam office and a further approximately 788 employees spread across 16 main offices in key global procurement locations, with particularly large staff numbers present in Russia and Ukraine. This business segment also employs approximately 7,200 individuals globally in its industrial activities.

Marketing Activities (Agricultural Products business segment)



The table below sets out the marketing volumes sold to third parties of each main commodity category handled by the Agricultural Products business segment for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

	Marketing volumes sold to third parties		
	2008	2009	2010
	(million MT)		
Grains	20.5	19.8	20.9
Oil/oilseeds	8.6	8.1	9.4
Cotton	0	0	0.2
Sugar	0.9	1.0	0.5

Examples of Glencore's marketing strategies for the Agricultural Products business segment include:

- Glencore's access to in-land and port elevators and silos enables Glencore to procure and store sizeable quantities of commodities and seek to exploit time, product and geographic arbitrage opportunities as they present themselves. This access also enables volumes, supplied by a large number of small local suppliers, to be aggregated in storage facilities in order to optimise origination margin. In addition, this access provides capacity and reliability in supply to Glencore's end customers without dependence on third party logistics.
- With respect to grains, Glencore leverages its long-term relationships with suppliers and its access to the infrastructure needed to access local markets to exploit geographic arbitrage opportunities, that is, by sourcing grains in a lower cost geographic area, using its skill and network to handle all logistics, financing and risk managements aspects, and then selling the product into a higher margin geographic area.
- With respect to oil and oilseeds, Glencore leverages its ownership of processing facilities and relationships with key processors, which enable Glencore to operate in correlated commodities and market their price differentials, that is, to determine whether Glencore can make a greater margin by selling an unprocessed commodity or by processing a commodity and then selling the processed commodity, and acting accordingly.
- With respect to sugar, Glencore leverages its global statistical research and analysis and local knowledge (for example, Glencore has been active in local Russian and Indian markets for 15 to 20 years marketing domestic sugar as well as processing and marketing imported sugar) into marketing strategies covering flat price, origin basis, raws spreads, whites spreads and white sugar arbitrage.

Overview

The Agricultural Products business segment originates and markets grains (including wheat, barley and corn), oil/oilseeds (including most edible oils, biodiesel and their source seeds/beans), cotton and sugar.

Market

The Agricultural Products business segment is estimated to have accounted for approximately 8.7 per cent. of the addressable market for grains in 2010, with significant market share in Europe, the CIS and Australia. In oils/oilseeds, Glencore believes that the Agricultural Products business segment accounted for approximately 4.5 per cent. of the addressable market in 2010, with significant market share in South America for oil/oilseed and in Europe for rapeseed and biodiesel.

Suppliers

The suppliers to the Agricultural Products business segment are farmers, farming co-operatives, processing plants, local exporters and global merchants. Individual commodity traders such as Cargill are the largest suppliers, representing in aggregate approximately 20 per cent. of the physical volumes that Glencore marketed during the year ended 31 December 2010. Glencore typically transacts with these third party commodity merchants as liquidity providers on a spot basis and generally does not have long-term supply contracts with them. The only top five supplier which is not a commodity merchant is Vicentin, Argentina's largest soybean crusher and producer of soy oil most of which is supplied under long-term contract. The remaining supply base (including farmers) is very diversified and fragmented. The Agricultural Products business segment generally enters into commitments to buy agricultural products only as part of specific

marketing strategies within the course of a crop season. The segment's owned or partly owned farming operations produce approximately 0.7 million MT of commodities annually and therefore constitute a minor part of the business segment's throughput of 31 million MT in 2010.

With respect to grains, Glencore typically buys grain from farmers at local spot prices for delivery to silos. Whilst occasionally grain from Australian or European farmers is procured pursuant to forward agreements, the business segment does not generally have long-term supply contracts in place with farmers, though it does have long-term relationships with important suppliers. Global markets, particularly on the supply side, are highly fragmented and, in many countries, Glencore procures grain directly from the farmer. North Africa, the Middle East and Asia are the prime importers.

With respect to oils/oilseeds, Glencore originates and physically ships approximately 25 per cent. of the physical volumes of oils/oilseed that it markets. Glencore processes, handles and markets oils (including most edible oils and biodiesel) and their source seeds/beans with sourcing primarily from Argentina, Brazil, Australia, EU and Ukraine.

Glencore entered the cotton business at a time when numerous traditional and single commodity players were exiting the industry due to the market disruptions of 2008. This lack of competition was seen as an opportunity for another major player. Another attraction was the fact that both the supplier and customer bases in cotton were highly fragmented. Finally, the cotton business fitted well within the existing office network where Glencore could leverage off its existing marketing expertise.

With respect to cotton, Glencore markets mainly unprocessed product, with sourcing primarily from West Africa, the U.S., India and Brazil.

With respect to sugar, Glencore markets both raw sugar and white sugar, and processes raw sugar into white sugar. Glencore is supplied a small portion of its sugar by farming operations which Glencore owns or in which it has an interest with sourcing primarily from Thailand, Brazil and Guatemala.

The top ten suppliers of agricultural products accounted for approximately 22 per cent. of the total agricultural products purchased in the year ended 31 December 2010. Seven of the top ten suppliers in the year ended 31 December 2010 were also in the top ten suppliers for the year ended 31 December 2009. Three of the top ten suppliers in the year ended 31 December 2010 were under long-term contracts consistent with the structure of the market.

Customers

Glencore's customers are the processing industry (food, consumer goods and animal feed), local importers, government purchasing entities and competing global marketers. The Agricultural Products business segment's top ten customers accounted for around 28 per cent. of total sales volumes by value during the year ended 31 December 2010. Contracts with customers in the food industry are negotiated bilaterally on a case-by-case basis, whilst contracts with governmental purchase bodies are usually tendered. Glencore estimates that it is awarded at least part of the tender in at least half of the agricultural tenders in which it participates and, where it is unsuccessful, it is sometimes able to supply part of the tender to the successful applicant. The Agricultural Products business segment does not enter into long-term contracts with these customers.

Features of the market

Liquid derivatives markets exist for the majority of the key commodities that the business segment markets, such as wheat, corn, soyoil, rapeseed and cotton, for example CBOT (Chicago), MATIF (Paris) and NYMEX (New York). These key products are also used as relative proxies for other products which the segment markets, such as barley and sunflower oil, in respect of which a liquid derivatives market does not currently exist, and Glencore is accordingly able to hedge, albeit imperfectly and/or partially, the risk on these physical commodities' positions using such proxy forward agreements and exchange traded futures. Glencore is also very active in ICE (New York) for global sugar futures trading and hedging as well as in local futures exchanges for sugar in India, Russia and, more recently, China.

Logistics

Physical flows of product are shipped via trucks, trains and vessels. Glencore owns approximately 250 train wagons in the CIS and partially owns 80 train wagons in the EU. In addition, Glencore ships product by vessel, including having approximately 30 short- and 60 medium-term charters with a maximum duration of

two years. Logistical planning and chartering of dry-bulk seaborne trade is performed in-house by a freight desk which provides initial quotes for the freight associated with each shipment. The in-house freight desk trades and hedges freight and shipping capacity positions for both the department's dry-bulk shipping needs and for third parties (approximately 50 per cent. is for third parties). Glencore's logistical assets also include in-land and port elevators and silos and train wagons. The elevators and silos are located in Argentina, Australia, Brazil, Estonia, Hungary, Kazakhstan, Paraguay, Poland, Romania, Russia, Ukraine and Uruguay. Logistics assets are particularly important in the CIS as third party logistics assets typically have insufficient capacity and are not sufficiently reliable. Glencore's elevators have a combined storage capacity of around 1 million MT per annum and its silos have a combined storage capacity of 3.8 million MT per annum. The table below sets out the total in-land and port elevators and silo capacity held by the Agricultural Products business segment for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

Aggregate capacity[1]	Year ended 31 December		
	2008	2009	2010
		('000 MT)	
Port elevators	970	970	1,000
Silos	3,800	3,800	3,800
Total	4,770	4,770	4,800

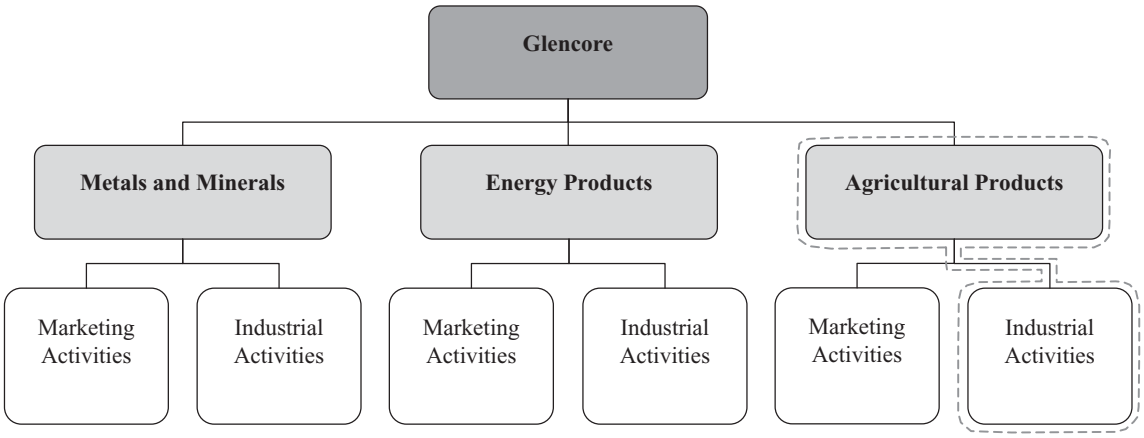
Note:

(1) These figures represent the capacity across the aggregate portfolio of some 90 elevators and silos held by the Agricultural Products business segment.

Competitors

Glencore has three categories of competitors: large multinational merchants (Cargill, ADM, Bunge and Louis Dreyfus Group), smaller, more regionally focused merchants (includes Noble Group and Nidera) and local companies with a single country focus, primarily in Russia, Ukraine, Argentina and Australia.

Industrial activities (Agricultural Products business segment)



Overview

The table below summarises information about key Agricultural Products producing industrial assets as at 31 December 2010:

Company	Country	Commodity	Annual production capacity	Glencore's ownership interest	Remaining ownership interest	Any contractual relationship with Glencore
Controlled:						
Moreno	Argentina	Oilseed crushing	1.9 million MT	100%	—	N/A
Ponta Pora	Brazil	Oilseed crushing	350,000 MT	100%	—	Toll agreement
OMEZ	Ukraine	Sunseed crushing	250,000 MT	80%	20% privately held	Toll agreement
Lubmin	Germany	Rapeseed crushing	140,000 MT	100%	—	Toll agreement
		Biodiesel production	60,000 MT			
Biopetrol	Germany and Netherlands	Biodiesel production	1,000,000 MT	60.3%	Publicly traded on Frankfurt Stock Exchange	N/A
Advanced Organic Materials	Argentina	Biodiesel production	50,000 MT	50%	50% privately held	N/A
Mills	Argentina, Brazil and Uruguay	Flour/rice production	1,500,000 MT	50-100%	—	N/A
Farming	Australia, Argentina, Kazakhstan, Paraguay, Russia and Ukraine	Farming activities on owned and leased land	270,000 hectares	50-100%	Any minority ownership is privately held	N/A
Rio Vermelho	Brazil	Ethanol and sugar cane crushing	1.2 million MT	76%	24% privately held	N/A
Non-controlled:						
Renova	Argentina	Biodiesel	480,000 MT	33.3%	33.3% Vicentin and 33.3% Molinos	Toll agreement

Financial information

The table below sets out selected financial information on the controlled industrial activities of the Agricultural Products business segment for the years ended 31 December 2008, 31 December 2009 and 31 December 2010. The information in this table has been extracted without material adjustment from Glencore's accounting books and records, which are unaudited:

	2008	2009	2010
	(U.S.$ million) *(Unaudited)*		
Agricultural			
Revenue	1,337	1,789	2,180
Adjusted EBITDA pre-exceptional items[(1)]	95	85	88
Adjusted EBIT pre-exceptional items[(1)]	84	48	39
Capex	102	116	71

Note:

(1) Excludes share of income from associates and dividends.

Farming production

The tables below sets out farming production of the controlled assets of the Agricultural Products business segment for the years ended 31 December 2008, 31 December 2009 and 31 December 2010:

Total Farming Production of Major Commodities by Country/Commodity MT

	Australia			Argentina			Paraguay			Russia			Ukraine			Kazakhstan		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Wheat	37,116	49,426	100,739	22,131	26,857	7,243	4,406	4,058	3,722	109,262	114,298	124,096	85,625	91,215	81,782	N/A	41,498	17,725
Barley	20,385	17,793	2,801	1,437	3,591	477	N/A	N/A	N/A	15,439	10,588	6,350	47,544	66,274	49,268	N/A	6,454	729
Corn	N/A	N/A	N/A	60,930	34,067	53,836	7,487	9,609	5,689	10,506	12,287	8,935	56,167	7,884	43,288	N/A	N/A	N/A
Rapeseeds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	421	2,812	6,149	16,701	13,922	N/A	N/A	N/A
Sunflower seeds	N/A	N/A	N/A	69,320	48,228	34,943	N/A	N/A	N/A	9,838	6,929	7,516	7,952	7,313	11,729	N/A	N/A	N/A
Soybeans	N/A	N/A	N/A	73,419	39,742	81,083	20,315	19,627	26,976	322	355	205	9,746	22,213	13,737	N/A	N/A	N/A
Total	**57,501**	**67,219**	**103,540**	**227,238**	**152,484**	**177,582**	**32,208**	**33,294**	**36,387**	**145,367**	**144,878**	**149,915**	**213,183**	**211,600**	**213,726**	**N/A**	**47,952**	**18,454**

Total Production MT

Production MT	Crushed/Estered/ Milled Volumes		
	2008	2009	2010
	(million MT)		
Crushing			
Moreno	1.32	1.28	1.19
Ponta Pora	N/A	0.11	0.22
OMEZ	0.16	0.21	0.19
Lubmin	N/A	N/A	0.16
Biodiesel			
Biopetrol	N/A	N/A	0.27
Renova	0.22	0.38	0.49
Advanced Organic Materials	N/A	N/A	0.03
Rice Milling			
Argentina	0.15	0.14	0.10
Uruguay	0.11	0.12	0.08
Wheat Milling			
Agua Branca	0.37	0.34	0.36
Moinhos Cruzeiro	N/A	N/A	0.68
Sugarcane Processing			
Rio Vermelho	0.40	0.90	1.12

Farming Assets:

Glencore's farming assets are mainly concentrated in the CIS, Australia, Paraguay and Argentina. Glencore owns or part owns the land as full owner or on long-term leases. These activities enable the department to source its products at local prices, provide valuable information on the expected crop yields and enable Glencore to build closer relationships with other farmers in the respective regions.

Processing Assets:

Access to or ownership of processing assets enables Glencore to take advantage of the various price differentials for agricultural commodities. The largest of these assets is Moreno in Argentina, of which Glencore owns 100 per cent. Moreno's main activity is to produce and export edible oils and meal. Moreno's facilities include three sunseed/soybean crushing plants in Necochea, Daireaux and Villegas in Argentina with a combined capacity of 1.9 million MT per annum. In 2007, Moreno started a biodiesel facility as a joint venture. The plant became fully operational in 2008 and its current capacity is 0.5 million MT per annum. In addition, Glencore owns, or part owns, crushing facilities with a combined capacity of 740k MT per annum in Brazil, Ukraine and Germany, including:

- a 100 per cent. interest in Ponta Pora, a Brazilian oilseed crushing plant with production capacity of 350k MT per annum;
- a 100 per cent. interest in Lubmin, a German rapeseed crushing plant with capacity of 140k MT per annum;

- an 80 per cent. interest in OMEZ, a Ukrainian sunseed crushing plant with capacity of 250k MT per annum;
- a 40 per cent. share of production rights in a crushing plant through its stake in a joint venture with Vicentin and Molinos in Argentina which is expected to be operational in 2012 and which will have a capacity of 5 million MT per annum;
- a 76 per cent. stake in Rio Vermelho, a stand-alone distillery located in state of Sao Paulo (Brazil), with a sugarcane crushing capacity of 1.2 million per annum. Currently only produces hydrous fuel ethanol (approximately 95,000 m^3/season); and
- a soft seed crushing facility with a capacity of 500k MT is currently under construction in Hungary with an expected start-up date in the fourth quarter of 2011.

Glencore has the following other production interests outside the crushing business:

- a 60.3 per cent. stake in the Swiss company Biopetrol Industries AG owning four biodiesel production facilities;
- a 33.3 per cent. stake in Renova, an Argentinean biodiesel producer;
- rice/wheat mills with a combined capacity of 1,500k MT per annum in Argentina, Brazil and Uruguay; and
- a share in two biodiesel production facilities in Argentina with a combined capacity of 530k MT per annum.

The Agricultural Products business segment's medium-term investment is focused on increasing processing capacity in oil/oilseeds at origin, which is mainly in South America.

Relationship and commercial arrangements with Xstrata

Overview of Xstrata

Glencore owns 34.5 per cent. of Xstrata, is its largest shareholder. As at 29 April 2011 (being the last practicable date prior to publication of the Prospectus), Glencore currently has two directors on the board of Xstrata (being Willy Strothotte and Ivan Glasenberg). Willy Strothotte will resign from the board of directors of Xstrata with effect from the date of the Xstrata Annual General Meeting (expected to be held on 4 May 2011) and Ivan Glasenberg will stand for re-election as a director at this meeting. In accordance with the Relationship Agreement (as described below), Glencore has also nominated Aristotelis Mistakidis and Tor Peterson as directors to the Xstrata board (who are subject to election by the shareholders of Xstrata at the Xstrata Annual General Meeting).

Shares in Xstrata are listed on the Official List of the FSA, admitted to trading on the London Stock Exchange's market for listed securities and admitted to listing on the SIX. As at 29 April 2011, being the last practicable date prior to the publication of this Prospectus, the market capitalisation of Xstrata was approximately U.S.$75.4 billion. Xstrata is a member of the FTSE 100, an index that comprises the 100 "most highly capitalised UK-domiciled blue chip companies".

Xstrata is the fourth largest diversified mining group in the world by revenue with top five industry positions in copper, export thermal coal, export coking coal, ferrochrome, zinc, nickel and vanadium. In addition, Xstrata has recycling facilities, additional exposures to platinum, gold, cobalt, lead and silver and a suite of global technologies, many of which are industry leaders. Xstrata's operations and projects span 19 countries: Argentina, Australia, Brazil, Canada, Chile, Colombia, the Dominican Republic, Germany, Ireland, New Caledonia, Norway, Papua New Guinea, Peru, the Philippines, South Africa, Spain, Tanzania, the United Kingdom and the U.S.

Xstrata mines and processes physical commodities that are marketed by Glencore's Metals and Minerals and Energy Products business segments. Its business is organised in the following five principal business units:

Xstrata Alloys: Xstrata is the world's largest producer of ferrochrome and one of the world's leading producers of primary vanadium, with integrated mining and smelting facilities in South Africa. In South Africa, Xstrata also mines and concentrates platinum group metals.

Xstrata Coal: On a managed basis, Xstrata is the world's largest producer of export thermal coal, one of the largest producers of export semi-soft/pulverised coal injection coal and among the top five producers of export coking coal. It has interests in 30 operating coal mines in Australia, South Africa and Colombia.

Xstrata Copper: Xstrata is a fully-integrated producer of copper metal and concentrate and is one of the world's five largest producers of mined copper, with mining and mineral processing operations in Argentina, Australia, Canada, Chile and Peru. Xstrata also has a portfolio of mine development projects at various stages of evaluation in Argentina, Australia, Chile, the Philippines, Papua New Guinea and Peru.

Xstrata Nickel: Xstrata is one of the world's five largest producers of nickel and one of the largest recyclers and processors of nickel and cobalt-bearing materials. Its operations include mines and processing facilities in Australia, Canada, Norway and the Dominican Republic.

Xstrata Zinc: Xstrata is one of the world's largest producers of zinc and also produces lead and silver. Xstrata Zinc incorporates zinc smelting operations in Spain, Germany and Canada, interests in four operating mines, a mine project and a lead smelter in Australia, a lead refining plant in the United Kingdom, interests in the Antamina copper and zinc mine in Peru, two zinc mines, a lead smelter and refinery and a minority interest in a zinc smelter in Canada.

In addition to its five principal business units, Xstrata also operates Xstrata Process Support and Xstrata Technology, mining and processing technology businesses with operations in Australia, Canada, Chile and South Africa.

Financial information

The table below sets out certain financial information relating to Xstrata for the years ended 31 December 2008, 2009 and 2010. Such information has been extracted without material adjustment from Xstrata's Annual Report 2010.

	2008	2009	2010
	(U.S.$ million, except per share amounts)		
Revenue	27,952	22,732	30,499
Operating profit (before exceptional items)	7,249	4,369	7,654
Attributable profit	3,595	661	4,688
Dividends per share (U.S.$)	.10	.08	.25
Total assets	55,314	63,824	69,709
Net assets	24,399	34,919	42,021
Cash and cash equivalents as at 31 December	1,156	1,177	1,722

The Relationship Agreement

Xstrata is party to the Relationship Agreement with Glencore dated 20 March 2002. The Relationship Agreement regulates the continuing relationship between the parties. In particular, it ensures that:

- Xstrata is capable of carrying on its business independently of Glencore as a controlling shareholder (as such term is defined in the Relationship Agreement);
- transactions and relationships between Glencore (or any of its subsidiaries or affiliates) and Xstrata are at an arm's length and on normal commercial terms;
- Glencore shall be entitled to nominate up to three directors or (if lower or higher) such number of directors equal to one less than the number of directors who are independent directors (which means a director who is not a director, officer or employee of any member of Glencore and is free from any business or other relationship with Glencore or any of its associates, which could materially interfere with the exercise of his independent judgment in matters concerning Glencore); and
- directors of Xstrata nominated by Glencore shall not be permitted to vote on any board resolution, unless otherwise agreed by the independent directors, to approve any aspect of Xstrata's involvement in or enforcement of any arrangements, agreements or transactions with Glencore or any of its subsidiaries or affiliates.

It is expressed that the Relationship Agreement terminates in the event that Glencore ceases to be a controlling shareholder of Xstrata following a sale or disposal of shares in Xstrata or if Xstrata ceases to be listed on the Official List and traded on the London Stock Exchange.

Operational agreements between Glencore and Xstrata

Alloys

Xstrata Alloys entered into a ferrochrome marketing agreement with Glencore on 21 April 1995, appointing Glencore as its exclusive worldwide marketing agent for the sale of Xstrata Alloys and Merafe's entire production of ferrochrome, other than ferrochrome sold into the U.S., Canada and certain Asian countries. The agreement continues for as long as Xstrata Alloys and Merafe produces ferrochrome. Glencore is obliged to use its best endeavours to arrange sales at prevailing market rates, subject to initial agreement and approval by Xstrata Alloys and Merafe prior to effecting the sale. Glencore assists Xstrata Alloys in negotiating sales contracts with third parties. Glencore is entitled to receive an agency fee of 3.5 per cent. on FOB sales revenues and an additional fee of 0.75 per cent. on FOB sales revenues for assuming the risk of non-payment by customers on this material. Glencore assumes 60 per cent. of the risk of non-payment by customers in relation to ferrochrome sales.

If, at any time, Xstrata Alloys and Merafe notifies Glencore that it is able to find purchasers for its production at prices higher than those generally obtainable by Glencore, Xstrata Alloys may, unless Glencore is able to obtain similar prices, sell its products in the market. Glencore is nevertheless entitled to an agency fee of 3.5 per cent. of FOB sales revenue in respect of such sales. Glencore is also entitled to receive a U.S.$50,000 monthly fee in connection with market analysis and certain administrative tasks it performs for Xstrata Alloys. Interest is charged by Xstrata Alloys on single monthly settlements made by Glencore, and Glencore charges interest on any selling expenses incurred on behalf of Xstrata Alloys at LIBOR and a margin of 150 basis points.

Ferrochrome sold into the U.S. and Canada is distributed by Glencore Ltd and Glencore Canada Inc., respectively, under two distribution agreements. These agreements continue indefinitely, with both parties having the right to terminate the agreement on 12 months' notice. The percentage of distribution fees payable by Xstrata 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.

Mitsui & Co. Ltd is the appointed distributing agent for ferrochrome sales into China, Japan and South Korea up to a maximum of 105,000 tonnes per annum. A change in distributing agent for sales into these countries must be done with the consent of Glencore.

Xstrata Alloys entered into a chrome ore marketing agreement with Glencore in July 2010, appointing Glencore as its exclusive worldwide marketing agent for the sale of Xstrata Alloys and Merafe entire production of chrome ore. The agreement is for a fixed term ending 20 May 2011. Glencore is entitled to receive an agency fee of 2 per cent. on FOB sales revenues loading port value, Glencore assumes 100 per cent. of the risk of non-payment by customers in relation to chrome ore sales. Interest is charged by Xstrata Alloys on single monthly settlements by Glencore at LIBOR and a margin of 150 basis points.

In December 1997, Xstrata entered into a 20-year marketing agreement with Glencore in respect of Rhovan's and Vantech's (closed in 2004) entire production of vanadium, other than vanadium sold into the U.S. and Canada.

Glencore is obliged to use its best endeavours to arrange sales of vanadium pentoxide and ferrovanadium to customers at prevailing market rates, subject to initial agreement and approval by Xstrata Alloys prior to effecting the sale. Xstrata Alloys is obliged to pay to Glencore an agency fee of 3.5 per cent. on FOB sales revenues and an additional fee of 1.5 per cent. on FOB sales revenues for assuming the risk of non-payment by customers on this material. Glencore assumes 100 per cent. of the risk of non-payment by customers in relation to vanadium sales.

If, at any time, Xstrata Alloys notifies Glencore that it is able to find purchasers for its production at prices higher than those generally obtainable by Glencore, Xstrata Alloys may, unless Glencore is able to obtain similar prices, sell its products in the market. Glencore is nevertheless entitled to the 3.5 per cent. agency fees described above in respect of such sales. Interest is charged by Xstrata Alloys on single monthly settlements made by Glencore, and Glencore charges interest on any selling expenses incurred on behalf of Xstrata Alloys at LIBOR and a margin of 150 basis points.

Vanadium pentoxide and ferrovanadium sold into the U.S. and 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 and, consequently, the percentage of distribution fees payable by Xstrata 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.

Coal

In 2002, Xstrata entered into a 20-year market advisory agreement with Glencore with fee reviews at the end of every fifth year of the agreement. Pursuant to this agreement, Glencore acts as Xstrata's market adviser with respect to its export production of coal (other than for Xstrata Coal's share of production from the Cerrejón thermal coal operation in Colombia). The fee payable to Glencore is U.S.$0.50 per attributable tonne of coal exported by Xstrata from Australia or South Africa.

In 2010, Xstrata entered into market standard forward commodity price derivatives for 1,070,000 tonnes (2009: 4,455,000 tonnes) and bought market standard forward commodity price derivatives for 385,000 tonnes (2009: nil tonnes) with Glencore as counterparty. During the year ended 31 December 2010, 3,360,000 sold tonnes and 385,000 bought tonnes were delivered (2009: 3,180,000 tonnes were sold). At 31 December 2010, 965,000 tonnes (2009: 3,255,000 tonnes) were contracted with Glencore for delivery in 2011 and 2012. These derivatives are on arm's length terms and conditions and are included within derivative financial assets and liabilities.

During the year ended 31 December 2010, nil tonnes were borrowed from Glencore (2009: 2,550 tonnes) and nil tonnes owed to Glencore at 31 December 2010 (2009 nil tonnes) on arm's length terms and conditions.

In April 2010, Xstrata entered into a five-year fuel supply agreement with Glencore to supply diesel fuels to coal mines and cattle stations in New South Wales and Queensland. Under this supply agreement U.S.$147 million (2009: U.S.$111 million) worth of fuel was delivered during the year ended 31 December 2010. The supply agreement is on arm's length terms and prices change monthly according to the world market price per barrel (U.S.$/BBL).

In February 2010, Cerrejón entered into a five-year fuel supply agreement with Glencore to supply diesel fuels. The Group's share of the fuel purchases for the year ended 31 December 2010 was U.S.$65 million (2009: U.S.$44 million). The supply agreement is on arm's length terms and prices change for each shipment according to the world market price per barrel (U.S.$/BBL).

All coal purchases and sales with Glencore are on arm's length terms and conditions.

Copper

Xstrata Copper has entered into an "evergreen" service agreement with Glencore with a 12-month cancellation notice for the supply of advice, support and assistance with regard to its marketing and operational hedging activities.

Copper cathode sales agreements were entered into between Xstrata Copper Canada/Xstrata Copper North Chile/Xstrata Commodities Middle East and Glencore for the period 1 January to 31 December 2010. All sales were based on either spot or benchmark terms in accordance with prevailing market conditions. These agreements have been replaced with new annual contracts for 2011, based on either spot or benchmark terms in line with prevailing market conditions.

Xstrata Copper (Minera Alumbrera Limited) has entered into a five-year frame contract with Glencore on an "evergreen" basis. The sales terms for the copper concentrate are negotiated annually on arm's length terms and conditions. Minera Alumbrera Limited, on occasions, sells concentrate to Glencore at prevailing spot market prices.

Copper concentrate purchase agreements were entered into between Xstrata Copper North Chile and Glencore for a four-year frame contract commencing 1 January 2007. All purchases are based on benchmark terms in accordance with prevailing market conditions. This is an "evergreen" contract after 2010 and therefore continues to be in place.

Copper concentrate sales agreements were entered into between Xstrata Copper Tintaya and Glencore for the period 1 January to 31 December 2010. All sales are based on either spot or benchmark terms in accordance with prevailing market conditions. As these sales agreements are spot contracts Glencore expects to replace these for 2011 based on prevailing market conditions.

A copper concentrate sales agreement was entered into between Xstrata Commodities Middle East and Glencore for a three-year period effective from 1 June 2008 and "evergreen" thereafter on benchmark

terms. Xstrata Commodities Middle East also sells concentrate to Glencore based on a spot basis on occasions throughout the year at prevailing market terms.

Xstrata Copper North Queensland has entered into a sales agreement with Glencore for copper concentrate for a three-year period effective from 1 June 2008 and "evergreen" thereafter. This agreement is based on annual benchmark terms.

Copper blister and anode sales agreements were entered into between Xstrata Commodities Middle East and Glencore between April and December 2010 at benchmark or spot terms. These agreements have been replaced with a copper blister annual contract for 2011 on benchmark terms.

A molybdenum concentrate spot sales contract was entered into between Mineral Alumbrera Limited and Glencore in 2010 on market-related terms.

A molybdenum concentrate contract was entered into between Xstrata Norte Exploraciones y Servicios Limitada and Minerales del Sur S.A. for 2010 off-take Collahuasi tonnes on market-related terms. Glencore is in the process of renewing this contract for 2011.

All sales transactions with Glencore are on arm's length terms and conditions.

Nickel/Cobalt

Xstrata Nickel has entered into long-term purchase agreements with Glencore for copper-cobalt white alloy raw material feeds to the Sudbury smelter in Canada and Nikkelverk refinery in Norway. Contracts include both a metal purchase and a sale component for cobalt. The term of the contracts are to the end of 2011, continuing indefinitely thereafter unless terminated by either party with six months' notice given not earlier than 1 July 2011. Pricing terms are based on prevailing market rates. Other short-term or one-time feed purchase agreements were entered into with Glencore, with pricing terms based on prevailing market rates. During 2010, Xstrata Nickel purchased from Glencore 102 tonnes of nickel, 109 tonnes of copper, 15 tonnes of cobalt and 66 kilograms of PGM's (2009: 287 tonnes, 563 tonnes, 250 tonnes, and nil kilograms, respectively). In addition, during 2010, Xstrata Nickel sold to Glencore 64 tonnes of cobalt (2009: 297 tonnes)[(1)].

In March 2007, Xstrata Nickel entered into sole distributorship agreements with Glencore, for its nickel, cobalt and ferronickel production. These agreements continue until 31 December 2012 and are automatically renewed for successive three year periods unless terminated by either party with not less than 12 months' notice prior to the end of the original term or any renewal terms, or unless Xstrata Nickel permanently ceases production of these metals. The nickel and cobalt distribution agreement was extended, only in respect of nickel, for a further five year term on 15 April 2011 and a revised premia structure will take effect only in respect of nickel as of 1 January 2013. These amendments with respect to nickel are subject to board approval by Xstrata. Xstrata Nickel, at its sole discretion, may cease, suspend or reduce production at any time. Glencore is obliged to distribute the products with all due care and diligence and shall cultivate and maintain good relations with purchasers and potential purchasers in accordance with sound commercial principles and taking into account Xstrata Nickel's business principles. All sales terms and conditions are set on an arm's length basis. For nickel and cobalt sales, the price basis is the month following the month of delivery. For ferronickel sales, the price basis is the quotational period provided for in customer contracts. Accordingly, provisionally priced nickel, cobalt and ferronickel revenues are subject to final price adjustments due to future price changes. During 2010, Xstrata Nickel sold to Glencore 92,139 tonnes of nickel (2009: 88,457 tonnes), 3,104 tonnes of cobalt (2009: 3,066 tonnes) and nil tonnes of ferronickel (2009: 236 tonnes). In addition, Glencore prepays monthly to Xstrata Nickel in two equal instalments 100 per cent. of the value of the month's planned production. The prepayment balance as at 31 December 2010 amounted to U.S.$36 million (2009: U.S.$49 million).

Xstrata Nickel sells refined copper to Glencore on arm's length terms and conditions under spot arrangements, which are based on prevailing market rates. During 2010, Xstrata Nickel sold to Glencore 3,698 tonnes of copper (2009: 1,547 tonnes). Effective for the period 1 January to 31 December 2011,

(1) The contract with Xstrata Nickel for the sale of cobalt is a toll conversion and sale contract. Under the terms of such contract Glencore is able to sell excess cobalt concentrate which it might not otherwise have the capacity to process to a subsidiary of Xstrata and then buy back a portion of the processed cobalt metal. 50 per cent. of the material purchased by Xstrata Nickel is sold onto its subsidiary production operations and the remaining 50 per cent. is toll converted into cobalt metal by such subsidiary. The converted metal is then returned to the Glencore Group in accordance with the terms and conditions of the agreement between the Glencore Group and Xstrata Nickel. All transactions are completed in accordance with contracted terms and on an arm's length basis. The sale of cobalt to Xstrata Nickel is treated as a normal sale in the Group's accounts and the metal returned is treated as a normal purchase.

Glencore has agreed to purchase, on a monthly basis, all copper production not otherwise sold by Xstrata Nickel under long-term contracts.

In April 2011, Xstrata Nickel and Glencore agreed the principal terms of a sole sub-distributorship arrangement in relation to 100 per cent. of the ferronickel production from the Koniambo ore body in New Caledonia, a project owned jointly by Xstrata Nickel and Société Minière du Sud Pacifique, the development arm of the North Province of New Caledonia, where Xstrata Nickel holds the exclusive marketing rights for all products. The terms agreed are binding on the parties subject to the satisfaction of certain conditions, which are expected to be satisfied during 2011. The sub-distributorship arrangement is expected to continue until 31 December 2017 and will be automatically renewed for successive three-year periods, unless and until terminated by either party by written notice no less than one year prior to the end of the initial term or any renewal term. In addition, the arrangement will be capable of earlier termination due to, among other things, material breach by, or the insolvency of, either party. Xstrata Nickel will also have the right to temporarily cease, suspend or reduce delivery of ferronickel at any time following the provision of reasonable notice to Glencore and for whatever reason. All sales terms and conditions between Xstrata Nickel and Glencore are on an arm's length basis.

Zinc

On 1 January 2007, Xstrata Zinc renewed a service agreement for a period of three years which shall continue in effect thereafter unless terminated by any of the parties giving the other prior written notice of no less than 12 calendar months with Glencore (the Xstrata Zinc Service Agreement), under the terms of which Glencore provides advice and assistance with respect to pricing and structural issues regarding hedging and the optimisation of internal flows of raw materials. The fees to be paid by Asturiana under the Asturiana Service Agreement are U.S.$2 million per annum.

In 2010, Xstrata Zinc agreed to supply Glencore with 255,000 tonnes (2009: 315,000 tonnes) of SHG zinc slabs and CGG ingots from San Juan de Nieva and Nordenham smelters based on market prices plus the respective FOB/CPT market premium. The terms for the replacement 2011 annual contract are currently being finalised—shipments continue to be made as normal under this arrangement.

In 2010, Xstrata Zinc Canada agreed to supply Glencore with approximately 14,600 tonnes (2009: 63,700 tonnes) of SHG zinc slabs and jumbos based on market prices plus the respective delivery duty paid (DDP) premium. This contract has been replaced with an annual contract for 2011 based on market terms.

In 2010, Britannia Refined Metals agreed to supply Glencore with between 12,000 and 18,000 tonnes of lead metal ingots. The agreement is "evergreen" in nature. In addition, Britannia Refined Metals agreed to supply Glencore with a separate additional 7,500 tonnes of lead metal ingots. Both agreements are based on market prices plus the respective ex-works market premium.

In 2010, Xstrata Zinc Canada made agreements to supply Glencore with approximately 18,300 tonnes (2009: 32,000 tonnes) of lead metal ingots and jumbos. All agreements are based on market prices plus the respective DDP premium. These agreements have been replaced with an annual contract for 2011 based on market terms.

In 2010, Mt Isa Mine had an evergreen contract to supply 80,000 tonnes to Glencore (2003: 80,000 tonnes).

In 2010 Xstrata Zinc sold 300,000 tonnes of zinc concentrate to Glencore under an evergreen swap contract. In return, Xstrata Zinc purchased from Glencore 300,000 tonnes of various zinc concentrate qualities delivered to Xstrata Zinc smelters (2009: 300,000 tonnes). In addition, Xstrata Zinc sold 50,000 tonnes to Glencore under a time swap agreement.

In 2010, Xstrata Zinc sold to Glencore 158,000 tonnes of zinc concentrate under various spot sales contracts from Mt Isa Mine, Antamina, McArthur River and other zinc concentrate qualities.

In 2010, Xstrata Zinc had an agreement to supply Glencore 247,000 tonnes of McArthur River bulk concentrate on an evergreen basis (2009: 245,000 tonnes). Further to the aforementioned agreement, an additional 65,000 tonnes of McArthur River and Brunswick Mine bulk concentrate were sold under annual contracts.

During 2010, Xstrata Zinc Canada purchased 25,000 tonnes of lead concentrates from Glencore for delivery to the Belledune lead smelter under various spot contracts.

All evergreen and annual zinc concentrate and bulk concentrate contracts are based on recognised annual industry benchmark treatment charges and related terms for price participation and silver payables. Spot contracts are negotiated at prevailing market terms.

Technology

In 2006, Xstrata Technology was contracted to install a copper ISASMELT furnace, a lead ISASMELT furnace and an IsaProcess copper refinery at Kazzinc, a Glencore subsidiary for U.S.$99 million. The project commenced in May 2006 and will be commissioned late 2011. This transaction with Kazzinc is on arm's length terms and conditions.

Approximately 6.5 per cent. of Glencore's total purchases were attributable to purchases from Xstrata for the year ended 31 December 2010.

Worldwide office network

Organisation

The three business segments described above report to management at the corporate level and are supported by the finance, legal, risk, human resource and compliance departments. All activities related to a specific commodity, including physical marketing activities, hedging, logistics and industrial investments, are managed by the business segment that covers the particular commodity.

Glencore's finance department is headed by the Chief Financial Officer based at Glencore's head office in Baar. Finance and accounting staff in each principal location (Baar, London, Rotterdam, Stamford, Singapore and Beijing) handle the day-to-day finance and accounting tasks related to the business activities conducted out of that location. The proximity of local finance and accounting staff to Glencore's marketing and logistics activities is important in order to ensure prompt and professional handling of the finance and accounting activities related to the specific commodity. The head office finance staff handle (i) funding activities based on Glencore's corporate credit, such as syndicated loan facilities and debt capital market transactions, (ii) co-ordination of the worldwide treasury, hedging and credit and exposure management activities, (iii) presentation of Glencore's financial statements to investors and rating agencies, (iv) relationships with its investors and with rating agencies and (v) assets and liabilities management of its consolidated balance sheet and compliance with covenants. The head office accounting staff are responsible for (a) financial accounting, including the preparation of the financial statements of the legal entities, (b) preparation of Glencore's consolidated financial statements, (c) management information related to the performance of each individual business segment, (d) reporting throughout the entire group, (e) tax issues and (f) the worldwide relationship with its independent auditors.

Office network

Relationships with producers and consumers of raw materials are the responsibility of senior employees who receive support from Glencore's global network of more than 50 offices in more than 40 countries. As shown below, these offices are located in major American, European, Asian, African and Middle Eastern natural resources producing and consuming markets. Some of these offices also oversee local logistics, including supervision of shipments, initial quality control, local authority liaison and shipping

documentation. As at 31 December 2010, Glencore's global marketing network comprised the following offices:

Europe	CIS	Asia/Australia	Americas	Middle East and Africa
Avon	Baku	Beijing	Asuncion	Casablanca
Baar	Kiev	Brisbane	Bogota	Dubai
Bucharest	Moscow	Ho Chi Minh City	Buenos Aires	Johannesburg
Budapest	Odessa	Jakarta	Calgary	Maputo
Gdansk		Kolkata	Cancun	
Istanbul		Manila	Clarksville	
London		Melbourne	Hamilton	
Madrid		Mumbai	Houston	
Milan		New Delhi	La Paz	
Rotterdam		Seoul	Lima	
Sofia		Shanghai	Los Olivos	
Thame		Singapore	Mexico City	
Zagreb		Sydney	Montevideo	
		Taipei	Pittsburgh	
		Tokyo	Quito	
			Rio De Janeiro	
			Santiago	
			Sao Paulo	
			Stamford	

Glencore believes its global office network significantly enhances its worldwide sourcing and distribution capabilities. It also secures key competitive advantages by enabling Glencore to penetrate and maintain a presence in local markets, identify strategic investment opportunities, develop excellent knowledge of trading conditions and counterparty quality, and respond quickly to changes in market practices and characteristics. Glencore's close proximity to its suppliers and customers is one of its key strengths.

Tax residency

The Company is incorporated and registered in Jersey as a public company limited by shares under the Jersey Companies Law. The Company is headquartered in Baar, Switzerland and 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. Further, as set out in Note (4) of Section VII: "Unaudited Pro Forma Financial Information", the Restructuring will crystallise Swiss tax deductions of U.S.$4,785 million and will result in a deferred tax asset in Glencore International with a value of U.S.$444 million (net of other tax adjustments). Glencore's effective tax rate results primarily from the location of the Glencore Group's individual operations in differing tax jurisdictions relative to Glencore's historic corporate tax jurisdiction, Switzerland. Glencore's industrial operations are taxed at local rates in the jurisdictions where the relevant operating subsidiaries are located. It is not intended that the Company will be tax resident in any other jurisdiction.

Employees, employee relations and employee benefits

As at 31 December 2010, Glencore employed 2,772 people worldwide, excluding employees in the operations of its industrial assets. The employees include managers, support staff and employees in the offices. The following table indicates the distribution of Glencore's employees by geographic region:

Employees by geographic region

	As at 31 December 2010
Region	
Europe	1,241
U.S.	260
Latin America	176
Africa	59
Asia	400
Australia	56
CIS	580
Total	**2,772**

As at 31 December 2010, 54,884 people were employed by Glencore's industrial assets.

Employee relations

Generally, the Directors believe that Glencore enjoys good labour relations across its group. Glencore's direct employees are not unionised. Some employees in the operations of Glencore's industrial assets are unionised. Glencore believes that it and its industrial assets have a positive and constructive relationship with these unions. However, as in any business in which there is union involvement, there is a risk that Glencore's operations could be affected by disputes with unions (see "Risk Factors—Other risks relating to Glencore—The maintenance of positive employee relations and the ability to attract and retain skilled workers is key to the successful operation of Glencore's industrial activities"). Glencore minimises the risk of such disputes by ensuring that the management of Glencore and of the industrial assets maintains a frequent and open dialogue with the unions.

Employee benefits

Glencore's remuneration to employees includes salaries, bonuses and selective equity participation. Bonuses are generally discretionary based on the individual performance of the employee and the overall performance of Glencore. Benefits may include pensions, health insurance, life insurance and other allowances depending on the role of the employee and applicable law.

Please refer to Section X: "Additional Information" for further information on pensions and employee share plans.

Properties

Glencore leases its headquarters in Baar, Switzerland, as well as offices in major locations such as London, Rotterdam, Stamford and Singapore under long-term lease agreements.

Environment, health and safety

Glencore is committed to conducting its business activities in a manner that will safeguard the health and safety of all employees and protect the environment. Glencore's industrial assets, as well as marketing and logistics activities, are subject to a range of EHS laws and regulations. For its operations (industrial assets and marketing logistics), Glencore has EHS policies and management programmes in place to manage and ensure compliance as well as to track and improve overall performance with the applicable local and international EHS laws and regulations. Glencore's EHS policies, management programmes and reporting schemes seek to identify areas of non-compliance or areas for general improvement. These measures are also used to identify deficiencies by providing appropriate information and specialist advice to determine appropriate corrective actions.

Glencore's EHS policies and management systems are embedded into Glencore Corporate Practice programme ("GCP"). The GCP principles apply to Glencore's marketing activities and to all controlled industrial assets. GCP was designed to address the key non-financial aspects of Glencore's business activities that are important to its success and are indirectly linked to its overall financial performance, which are:

- health and safety;
- environment;
- community relations;
- human resources;
- impact on society and economies; and
- compliance.

These points are addressed in the form of commitments (a) to employees, the environment, communities in which Glencore operates, customers and investors; and (b) to adhere to good practice in compliance, communication and reporting. GCP meets internationally accepted good practice standards for corporate governance and management of non-financial activities.

In practice, GCP adds non-financial aspects to internal corporate reporting requirements, covering performance on societal, environmental and compliance indicators. Depending on the report subject matter, GCP may require annual or monthly internal reporting or, for critical incidents, reporting within 24 hours. Glencore will also make annual public reports on GCP itself, which will follow the latest

guidelines of the Global Reporting Initiative, an initiative which aims to create conditions for the transparent and reliable exchange of sustainability information.

Glencore encourages employees to ensure that customers, suppliers, agents, service providers and contractors comply with GCP where possible. Glencore also uses its influence to raise awareness and consideration of the basic principles within its joint ventures and entities in which its has non-controlling stakes.

Where GCP applies, employees are required to understand and comply with the principles. Glencore's managers are responsible for ensuring compliance, carrying out periodic assessments, management reviews and reviews of corrective action plans. Glencore applies appropriate controls, scaled for different levels of materiality in different areas of the group, and regularly benchmarks its achievements against targets and expectations, taking corrective action where necessary.

Environmental impact

In order to manage and limit the environmental impact of its controlled-extractive activities, the Glencore Group has established environmental management systems which are used to monitor environmental aspects of the operations undertaken by Glencore Group. Glencore's controlled-extractive assets carry out internal and external environmental audits from time to time. See the Prodeco MER, Mopani MER, Katanga MER and Kazzinc MER in Section XIV: "Independent Technical Reports" for further details of the environmental assessments carried out on Glencore's key industrial assets.

In common with other natural resources and mineral processing companies, despite its best efforts, Glencore's operations cannot always prevent adverse effects on the environment and surrounding communities. Such unfortunate situations may occur even though Glencore's controlled-extractive assets are managed in compliance with local laws, regulations and project-specific permits and environmental management plans. Typical issues in this regard include sulphur dioxide emissions caused by installations such as smelter furnaces or converter units, dust emissions from smelters, tailings dams or traffic on unpaved roads. Mining and ore processing always have a high demand for water which creates a challenge of ensuring a sufficient water supply (sometimes in arid regions) and managing effluents to preserve the quality of surface or ground waters. Project development may make land-clearing necessary, which can negatively impact biodiversity and change landscapes. Waste rocks and tailings usually occur on a large-scale and, if not used for backfill, they need to be disposed in a safe and environmentally friendly manner.

Glencore also looks to promote environmental awareness in its non-controlled industrial activities and works in partnership with its customers, suppliers and service providers to limit the overall impact along the entire supply chain. Glencore's marketing and logistics operations also need to actively manage certain issues to seek to prevent damage to the environment and surrounding communities.

Besides the environmental aspects of industrial assets, Glencore's marketing and logistics operations also need to actively manage certain issues to prevent damage to the environment and surrounding communities. For example, failure in the logistics of crude oil or petroleum products can result in major environmental impact with huge reputational and financial damages. Therefore, Glencore's time charter fleet for crude oil and petroleum products is regularly inspected according to international maritime standards and has to meet certain technical criteria (for example, double hull) before being qualified to transport Glencore's products. All of this ensures sea- and cargo-worthiness and reduces the risk of failure to a tolerable minimum.

Glencore's products placed in the market are in many cases covered by national and international product safety and dangerous goods regulations. Any failure in complying with these obligations could result in a delay of Glencore's product delivery, loss of insurance coverage, business interruption for Glencore's customers, administrative or criminal sanctions and in extreme cases (temporarily) banning from a marketplace. Glencore has management systems in place to ensure compliance with applicable product safety and dangerous goods regulations. For example, Glencore provides service providers within the supply chain as well as its customers with supporting product information and documentation to allow them to take appropriate steps in relation to safe transportation, handling and use of Glencore's products.

Glencore acknowledges that managing the environmental compliance and impact of Glencore's operations is a dynamic process as the international and local regulatory environment is changing regularly.

Health and safety

Glencore is committed to the health and safety of Glencore employees and contractors and surrounding communities. Glencore's operations developed, implemented and maintain health and safety management systems and programmes which meet international standards and applicable regulatory requirements. These are tailored to the specific needs of Glencore's operations and activities. Performance is regularly monitored by tracking injuries, lost days, fatalities and near-miss events. This information is used as the basis for continuous improvement programmes, training and improvement of the integrity and safety of work places as well as mobile or stationary equipment.

Communities

Glencore believes that its business activities, and in particular its mining operations, contribute in the medium and long term to local development of communities. In addition to monetary distribution of wealth (e.g. direct employment, taxes or royalties), Glencore adds value by procurement of products and services, investments in infrastructure and involvement in local social and development projects.

Initiatives are usually adapted to local situations and needs. They can either be single projects or programmes with long-term commitments. Areas of activity include, for example, education, sports, child care, medical care, culture, environment or even public provision of utilities for the surrounding communities. Glencore works in partnership with local authorities and communities to ensure effectiveness, efficiency and acceptance of each of these programmes.

Glencore seeks to maximise the share of its locally hired staff, to the extent possible, which results in positive employment opportunities in the surrounding communities. Glencore believes that, besides all the accompanying community programmes and projects, creating employment opportunities for the community is one of the major contributions to local development and wealth. This is especially relevant when Glencore operates in remote areas with limited employment opportunities and development challenges.

Although Glencore seeks to prevent local communities from adverse social impact caused by its activities, these cannot always be completely mitigated. In such an event and whenever possible, Glencore strives at least to minimise these effects and seeks to find fair compensation.

Insurance

Glencore maintains a number of key insurance policies that it believes are commercially appropriate to cover the risks associated with its business operations. All of Glencore's insurance policies are placed in external insurance markets with global and local insurers as appropriate and have bespoke terms to reflect Glencore's requirements. Deductibles are generally kept at a low level, ranging from zero to approximately U.S.$1 million (except for one of the industrial assets, which has a deductible of U.S.$20 million). The vast majority of Glencore's insurance policies are underwritten through Lloyd's and other major European and international insurance companies. Glencore maintains an insurance portfolio that covers both physical assets and liability exposures.

Glencore's global insurance policies cover its subsidiaries and its industrial assets (subject to some local insurance cover), and are purchased centrally by the Glencore Group. Glencore's principal global insurance policies include property damage and business interruption (specific to certain copper and zinc assets), charterer's legal liability, marine cargo, excess oil pollution liability, political risk (in respect of oil in storage and/or in transit only), offshore liabilities, piracy, general third party liability and directors' and officers' liability insurance. In addition, Glencore provides insurance and assistance in relation to its shipping subsidiaries and arranges coverage in respect of various owned vessels for relevant shipping risks such as hull and machinery losses or damage, loss of hire and third party liability and expenses claims from owning or operating ships as principal. Insurance for the majority of co-owned vessels is arranged by Glencore's joint venture partner/co-owner, such terms and conditions and underwriter's security ratings subject to approval by Glencore. Insurance policies for its industrial assets are typically purchased locally on an individual asset basis, with Glencore covering material losses in excess of local limits. All material and locally purchased policies are held centrally by the Glencore Group. These policies include property damage and business interruption, general third party liability and directors' and officers' liability, charterer's legal liability and marine cargo liability, where applicable. However, many of Glencore's material industrial assets, such as Mopani, Prodeco, Kazzinc, Mutanda and Katanga rely on the Glencore Group's global coverage for certain risks as opposed to effecting its own local insurance cover placed in each local territory. Where local coverage is currently in place in respect of an industrial asset, such as the

property damage and business interruption cover for Prodeco, Kazzinc and Mutanda, Glencore considers whether to cover such asset under the global policy, and it is intended that these three assets will be covered by the relevant global policy in 2011.

Glencore has relationships with a number of insurance brokers that have been selected for their better market representation in particular classes of insurance or relationships with either local or international underwriters. By using different brokers, Glencore believes that it receives better service in respect of policy placements, premium costs, advice and assistance on claims. Brokers are generally remunerated on a commission basis. Although Glencore does not set its own minimum financial security ratings in respect of insurers or brokers, it verifies and confirms ratings and suitability during the course of renewal discussions.

Legal and compliance

Glencore has policies and procedures to manage legal risks and address regulatory requirements and other compliance obligations. Glencore has a centralised group legal department that sets legal policy for the Glencore group, supervises the Glencore Group's overall legal function and provides legal services to all areas of the Glencore Group's business activities. In addition, there are some smaller legal teams that support specific business activities and offices, such as the freight and oil legal team in London and the agricultural legal team in Rotterdam. Furthermore, many of the larger Glencore local operating units, such as Kazzinc by way of example, have a local legal function.

Glencore also has a group compliance department that sets compliance policy for the Glencore Group and seeks to supervise the group's overall compliance function. The group compliance department ensures adherence with relevant laws and regulations through an awareness and review process. In addition, the compliance department has put in place a number of manuals to give the business guidance in a number of areas, including money laundering, conflicts of interest, sanctions, bribery and corrupt payments and confidentiality. Many of Glencore's local operating units also have dedicated compliance personnel to address applicable regulatory requirements and these report to the group compliance department.

While Glencore believes that its internal policies and procedures have been effective in the past, in preparing to become a publicly listed company, Glencore has reviewed and updated its internal policies and procedures to ensure it continues to have an appropriately high level of corporate governance, accountability and risk management and that such policies and procedures are properly documented and communicated. The UK Corporate Governance Code sets out the standards of good practice in relation to board leadership and effectiveness, remuneration, accountability and relationship with shareholders. Glencore has in place all the applicable UK requirements under the UK Corporate Governance Code, including the establishment of independent, effective audit and remuneration committees and the formal documentation of the terms of responsibility and scope of its internal audit procedures.

The Glencore Group's legal and compliance departments assist the Glencore Group in monitoring its overall liability profile associated with legal and regulatory matters, including liabilities that may be associated with the Glencore Group's historical activities.

Glencore is of the view that, in the context of the Glencore Group taken as a whole, there have been no material breaches of any material applicable laws and regulations.

Risk management and financial risk management

Risk management and control spans across Glencore's organisational structure. Glencore's Board has been and will further be involved in the risk management of the Glencore Group at a strategic level. Glencore's CEO engages in an ongoing interrogatory exchange with the management team as a primary oversight of group risk, supported in this function by the Group Risk Management team, multi-sourced risk reporting and the Chief Risk officer. This support, amongst other things, relates to consolidated risk reporting, co-ordination of group and departmental VaR, stress, scenario and other testing, reviewing and challenging the evaluation models and, in conjunction with departmental teams, input parameters used by commodity departments. The departments and Group Risk team further engage in a dialogue concerning general aspects of risk management policy and reporting. The internal audit and compliance and business ethics committees also play key roles in managing group operational risk and verifying process controls.

Glencore's business could be impacted by various external factors, for example political events and unfavourable actions by governments, natural catastrophes and operational disruptions. In addition, Glencore's activities expose it to a variety of financial risks: market risk (including commodity price risk, interest rate risk and currency risk), credit risk (including performance risk) and liquidity risk. Glencore's

overall risk management programme focuses on the unpredictability of financial markets and seeks to protect its financial security and flexibility by using derivative financial instruments substantially to hedge these risks. Among others, Glencore monitors its commodity price risk exposure using a VaR computation and assesses the open positions, which are those subject to price risks, including inventories of these commodities. Glencore's finance and risk professionals, working in co-ordination with the commodity departments, monitor, manage and report regularly to management on the financial risks and exposures Glencore is facing. Responsibility for reviewing the overall effectiveness of Glencore's system of internal controls and risk management systems lies with the audit committee.

Please refer to Section II: "Directors and Corporate Governance" for further information on the audit committee and to Section IV: "Operating and Financial Review" for further information on financial risk management.

IT Systems

Glencore's IT systems environment is based on the three primary elements of its organisation: the Glencore Group; the marketing operations; and the industrial assets. The Glencore IT department is structured so that it is vertically aligned to the marketing operations of the commodity departments, with horizontal coordination of the IT functions across the Glencore Group. The support and management of the IT systems within the industrial assets is performed by the relevant local teams, with the support and advice from the Glencore IT department based in Baar, London, Rotterdam, Singapore and Stamford. Glencore believes this structure enables it to react more quickly to market changes and enhances Glencore's ability to manage its activities in an efficient, reliable and timely fashion.

Glencore's business-critical software applications such as traffic/marketing, accounting and finance are based on integrated standard components. Glencore's core business processes are supported by a combination of in-house developed and off-shelf purchased applications and are continuously adapted to the newest business needs. All of these applications are managed from Glencore's headquarters in Baar and are available to all the major locations, but some commodity-specific applications are supported by the applicable marketing site, such as agriculture in Rotterdam. The Glencore Global Accounting Programme ("GGAP") is a new programme intended to provide Glencore with improved facilities over decision making, assembling resources and financial control. The implementation of a third party specialist, SAP AG, as enabler for GGAP is intended to provide greater reliability and accuracy of financial information and better support for the diverse information requirements from across the Glencore Group. The programme will be managed centrally in Baar and will replace the current local accounting application used by Glencore's main marketing sites in Baar, London, Singapore, Rotterdam and Stamford. Glencore has sought to establish structures and process to ensure GGAP is delivered on time and to budget and GGAP is scheduled to be released in three separate phases: Baar is due to go live in mid-2011; London, Singapore and Stamford in the third quarter of 2011; and Rotterdam in the first quarter of 2012.

In addition to GGAP, a number of other key IT projects are currently underway within the Glencore Group, such as the replacement of the current systems and operational processes supporting the oil commodity department and the new IT system to be implemented in the Energy Products business segment by 2013. Glencore is continuously expanding and upgrading its communications network in response to the growing need to link its worldwide staff electronically and to store, organise and make available to its staff the increasing volume of data transmitted within the global network.

Glencore's IT network architecture is based on a wide area network that interconnects three of its main marketing sites, namely Baar, London and Stamford, and is designed with built-in resilience through the use of dual connections operated by two separate suppliers. This configuration allows Glencore to provide an efficient and highly available service to its employees. Mechanisms which facilitate the restoration of Glencore systems in the event that they become unavailable are also in place. Glencore has its own IT department with approximately 170 employees worldwide, which excludes people employed in the operations of its industrial assets, focused on providing customised business solutions to the changing needs of Glencore's business and providing smooth operation of IT systems.

Dividend policy

Glencore will adopt a progressive dividend policy with the intention of maintaining or increasing its total ordinary dividend each year.

Glencore's earnings come from a diverse range of consolidated marketing and industrial activities, as well as from its ownership of stakes in other companies such as Xstrata, where the Company receives cash flow

in the form of dividends. The Board expects that its dividend policy will reflect this diversity as well as the various growth opportunities open to the Company.

The Board intends to maintain a strong balance sheet to ensure Glencore can continue to invest in organic growth and take advantage of strategic opportunities as they arise. The Board will monitor Glencore's future investment activities against alternative uses of capital, which could include ordinary dividends, special dividends or share buy-backs.

Dividends are expected to be declared by the Board semi-annually, with interim dividends announced with Glencore's half-year results and final dividends announced with Glencore's preliminary full year results. Interim dividends are expected to represent approximately one-third of the total dividend for any year. Dividends will be declared and paid in U.S. dollars, although Shareholders will be able to elect to receive their dividend payments in pounds sterling, Euros or Swiss Francs based on the exchange rates in effect at the date of payment. Shareholders on the Hong Kong branch register will receive their dividends in Hong Kong dollars.

The Directors currently expect to declare an interim dividend of U.S.$350 million in August 2011 concurrent with publication of the interim results for the six months to 30 June 2011.

As described more fully in Section IX: "Taxation", once cumulative dividends and other distributions paid by the Company exceed the aggregate of its nominal capital and Qualifying Reserves (as described in Section IX: "Taxation"), dividends and other distributions paid by the Company will be subject to Swiss federal withholding tax on the cash amount of the distribution at the then prevailing rate. The current rate of Swiss federal withholding tax is 35 per cent..

FTSE eligibility

Following discussions with FTSE, it is anticipated that Glencore will be included in the FTSE 100 under the fast entry rule (that is, at close of business on the first day of official trading).

Reasons for the Global Offer and use of proceeds

The net proceeds from the Global Offer receivable by the Company are estimated to be pounds sterling, U.S. dollar and Hong Kong dollar amounts equivalent in aggregate to U.S.$7,456 million after deduction of estimated underwriting commissions and estimated expenses of the Global Offer (assuming the maximum amount of the Underwriter's incentive commission and the discretionary elements of the fees of the Company's other advisers will be paid and including applicable VAT), assuming the Over-Allotment Option is not exercised and the Offer Price is set at the mid-point of the Offer Price Range and exchange rates as at 29 April 2011 (being the last practicable date prior to the publication of this Prospectus). If the Over-Allotment Option were to be exercised in full, the estimated net proceeds from the Global Offer receivable by the Company would increase to U.S.$8,439 million (estimated U.S. dollar equivalent of proceeds to be received in pounds sterling and Hong Kong dollars and assuming the Offer Price is set at mid-point of the Offer Price Range). The Company will not receive any portion of the proceeds resulting from the sale of the Sale Shares by the Selling Shareholder in the Global Offer (other than where proceeds are paid to Glencore International in respect of tax liabilities settled by the Company on behalf of certain Existing Shareholders where the Glencore group has a withholding tax or other legal obligation to do so and in certain cases to repay a small tranche of outstanding loans extended by companies within the Glencore Group).

The Directors believe that the Global Offer, together with Admission, will assist in positioning Glencore for the next stage of its development, as they will (in equal order of priority):

- provide further resources to invest in future organic and acquisition growth opportunities and improve the financial flexibility of the Company;
- enhance the profile of the Company with existing and potential suppliers and customers; and
- provide the Company with a permanent equity capital base and existing shareholders with a market for their Ordinary Shares going forward.

The Company currently intends to apply the proceeds from the Global Offer in the following order of priority:

- use of approximately U.S.$2.2 billion of the net proceeds from the Global Offer towards meeting the cash portion of the consideration payable to Verny, pursuant to the Kazzinc SPAs (further details of

which are set out in Section X: "Additional Information") in respect of Glencore's proposed acquisition of additional stakes in Kazzinc;

- use of approximately U.S.$5 billion of the net proceeds from the Global Offer towards meeting its budgeted total aggregate capital expenditure for the next three calendar years (ending 31 December 2013). Items falling within this include funding of significant expansion projects in respect of Kazzinc (estimated capital expenditure of: U.S.$834 million), Mopani (estimated capital expenditure of: U.S.$512 million), Prodeco (estimated capital expenditure of: U.S.$919 million), the West African Oil Assets (estimated capital expenditure of: U.S.$791 million) and Glencore's other industrial assets (estimated capital expenditure of: U.S.$900 million), further information in relation to which is set out in the Prospectus (Section I: "Information on Glencore"). Glencore will continue to assess its capital expenditure plans on an annual basis; and
- in order to reduce its cost of borrowing and improve financial flexibility, use of a portion of any proceeds that are not applicable to, or immediately required, for these purposes to reduce drawings under the U.S.$11,905 million revolving credit facilities and repay various other debt obligations of the Glencore Group. Should growth opportunities arise in the future, Glencore could either draw down any remaining facilities or put in place new facilities.

Current Trading and Prospects

Introduction

Glencore's operating and financial performance over the first quarter of 2011 continued to benefit from improved market conditions as also experienced in the final months of 2010.

Marketing

Marketing operations began 2011 strongly with performance for the first quarter of 2011 in line with management expectations. In particular, following a challenging 2010, the oil division reported substantially improved results, more in line with 2009 performance, due to increased arbitrage opportunities as a result of market volatility and tighter supply conditions.

Industrial

Glencore's consolidated industrial activities and associates delivered a substantially improved performance over the first quarter of 2011, primarily on the back of a strong commodity price environment but also assisted by year-on-year production increases at many operations. Operating costs and capital expenditures, including expansion related capital expenditures, were broadly in-line with management expectations.

Summary and outlook

Overall, Glencore's businesses performed in line with management's expectations over the first quarter of 2011. Strong market conditions experienced in the first quarter are continuing into the second quarter of 2011. Despite recent events in Japan and the Middle East, the Directors remain confident that economic activity and commodity demand remain robust and Glencore remains well positioned for 2011. In this regard, the Directors reconfirm Glencore's previously announced intention to declare an interim dividend of U.S.$350 million in August 2011 concurrent with publication of the interim results for the six months to 30 June 2011.

SECTION II: DIRECTORS AND CORPORATE GOVERNANCE

Board of Directors

The Directors of the Company are as follows:

Name	Age	Position
Simon Murray	71	Independent Chairman
Ivan Glasenberg	54	Chief Executive Officer
Steven Kalmin	40	Chief Financial Officer
Peter Coates	65	Independent Non-Executive Director
Leonhard Fischer	48	Independent Non-Executive Director
Anthony Hayward	53	Senior Independent Non-Executive Director
William Macaulay	65	Independent Non-Executive Director
Li Ning	54	Independent Non-Executive Director

Chairman

Simon Murray, aged 71 (Independent Non-Executive Chairman)

Simon Murray was appointed to the Board with effect from 28 April 2011. Mr Murray is currently the chairman of GEMS Limited, a private equity investment group operating across Asia, which he founded in 1998. Mr Murray worked for Jardine Matheson from 1966 to 1980, where he was responsible for their engineering business and trading operations, after which he set up his own company, Davenham Investments, a project advisory company. In 1984, Mr Murray joined Hutchison Whampoa as the group managing director, a post in which he served until 1993 and during which period he led the group's entry into the mobile telecommunication business, developed the group's energy business and expanded its container and port operations. Mr Murray continued to serve as a member of the board of Hutchison Whampoa until May 2007. From 1994 to 1997, Mr Murray was the executive chairman of Deutsche Bank Group for the Asia Pacific region with responsibility for the supervision of operations of 80 offices in 17 countries in the region. Mr Murray is a member of the board of directors of a number of public companies including IRC Limited, Essar Energy plc, Cheung Kong (Holdings) Limited, Orient Overseas (International) Ltd., Wing Tai Properties Limited, Greenheat Group Limited, Compagnie Financière Richemont SA, and Sino Forest Corporation. Mr Murray was a non-executive director of Vodafone Group Plc between July 2007 and July 2010. In 1993, Mr Murray was appointed a CBE in honour of his contribution to the Hong Kong community. Mr Murray has also been awarded the Order of Merit of the French Republic and is a Chevalier de la Légion d'honneur. He holds an honorary B.A. degree in law from Bath University and attended the Stanford Executive Programme (SEP) in the U.S.

Executive Directors

Ivan Glasenberg, aged 54 (Chief Executive Officer)

Ivan Glasenberg joined Glencore in April 1984 and has been Chief Executive Officer of Glencore since January 2002. Mr Glasenberg was appointed to the Board on 14 March 2011. Mr Glasenberg first worked in the coal/coke commodity department in South Africa for three years as a marketer, responsible for sourcing coal in South Africa and then in Australia for two years as head of the coal/coke commodity division, Asia, responsible for sourcing and marketing coal in regions including Australia, Asia and South Africa. Between 1988 and 1989, he was based in Hong Kong as manager and head of Glencore's Hong Kong and Beijing offices, as well as head of coal marketing in Asia, where his responsibilities included overseeing the Asian coal marketing business of Glencore and managing the administrative functions of the Hong Kong and Beijing offices. In January 1990, he became director of the coal/coke commodity department, responsible for the worldwide coal business of Glencore for both marketing and industrial assets, and remained in this role until he became Chief Executive Officer in January 2002. Mr Glasenberg is a Chartered Accountant of South Africa and holds a Bachelor of Accountancy from the University of Witwatersrand. Mr Glasenberg also graduated in 1983 from the University of Southern California with an M.B.A. degree. He is currently a director of Minara as well as Xstrata and UC Rusal. Before joining Glencore, he worked for five years at Levitt Kirson Chartered Accountants in South Africa.

Steven Kalmin, aged 40 (Chief Financial Officer)

Steven Kalmin joined Glencore in September 1999, starting in the Sydney office in Glencore's coal industrial unit, which was subsequently sold to Xstrata, as general manager of finance and treasury functions. Mr Kalmin was appointed to the Board on 14 March 2011. Mr Kalmin moved to Glencore's Baar head office in October 2003 to oversee Glencore's accounting and reporting functions and became Chief Financial Officer as of the end of June 2005. Mr Kalmin holds a Bachelor of Business from the University of Technology, Sydney and is a member of the Institute of Chartered Accountants of Australia and the Financial Services Institute of Australasia. He is also currently a director of various companies within the Glencore Group. Before joining Glencore, he worked for nine years at Horwath Chartered Accountants in Sydney, leaving the firm as a director.

Independent Non-Executive Directors

Peter Coates, aged 65 (Independent Non-Executive Director)

Peter Coates was appointed to the Board with effect from 14 April 2011. He is currently a non-executive director and chairman of Santos Ltd., and a non-executive director of Amalgamated Holdings Limited. Until recently, he was a non-executive director and chairman of Minara Resources Limited, having been appointed to the chair on 9 May 2008. During his executive career in the resource industry spanning more than 40 years, Mr Coates occupied many senior positions in resource companies associated with the mining of a cross section of commodities including silver, lead, zinc, nickel, iron ore, bauxite and coal. Prior to his retirement as an executive in December 2007, Mr Coates was the chief executive of Xstrata's coal business. He joined Xstrata in 2002 when Glencore sold its Australian and South African coal assets to Xstrata for cash and shares simultaneous with Xstrata's primary listing and capital raising in London. From January 2008 to June 2009 Mr Coates was non-executive chairman of Xstrata Australia. Mr Coates is a past chairman of the Minerals Council of Australia, the NSW Minerals Council and the Australian Coal Association. He was appointed to the Office of the Order of Australia in June 2009 and was recently awarded the Australasian Institute of Mining and Metallurgy Medal for 2010. He holds a Bachelor of Science degree in Mining Engineering from the University of New South Wales.

Leonhard Fischer, aged 48 (Independent Non-Executive Director)

Leonhard Fischer was appointed to the Board with effect from 14 April 2011. He was appointed the chief executive officer of RHJ International S.A. in January 2009, having been the co-chief executive officer from May 2007. He has been a member of the board of directors of RHJ International S.A. since 18 September, 2007. He is also chief executive officer of the Kleinwort Benson Group and is a member of the board of directors at Julius Baer Gruppe AG (formerly Julius Bär Holding AG), as well as at AXA Konzern AG, Germany and Arecon AG (vice president of the board) and was previously a non-executive director and member of the audit committee at 3W Power Solutions S.A. (formerly Germany 1 Acquisition Limited, the holding company of AEG Power Solutions). Mr Fischer was chief executive officer of Winterthur Group from 2003 to 2006 and a member of the executive board of Credit Suisse Group from 2003 to March 2007. He joined Credit Suisse Group from Allianz AG, where he had been a member of the management board and head of the Corporates and Markets Division. Prior to this, he had been a member of the executive board of Dresdner Bank AG in Frankfurt. He holds an M.A. in Finance from the University of Georgia.

Anthony Hayward, aged 53 (Senior Independent Non-Executive Director)

Anthony Hayward was appointed to the Board with effect from 14 April 2011. He was group chief executive of BP plc from 2007 to 2010 having joined BP in 1982 as a rig geologist in the North Sea. Following a series of technical and commercial roles in Europe, Asia and South America, he returned to London in 1997 as a member of the upstream executive committee. He became group treasurer in 2000, chief executive for BP upstream activities and member of the main board of BP in 2003. Tony is a board member of TNK-BP and a partner of AEA Investors. Mr Hayward is also a fellow of the Royal Society of Edinburgh and holds honorary doctorates from the University of Edinburgh, Aston University and the University of Birmingham. He studied geology at Aston University in Birmingham and completed a PhD at Edinburgh University.

William Macaulay, aged 65 (Independent Non-Executive Director)

William E. Macaulay was appointed to the Board with effect from 14 April 2011. He is the chairman and chief executive officer of First Reserve Corporation, a private equity investment firm focused on the energy industry, and has been with First Reserve since its founding in 1983. Prior to joining First Reserve he was a co-founder of Meridien Capital Company, a private equity buyout firm. From 1972 to 1982, he was with Oppenheimer & Co., Inc., where he served as director of corporate finance with responsibility for managing Oppenheimer's buyout business. He also served as general partner and member of the management committee, as well as president of Oppenheimer Energy Corporation. Mr Macaulay is chairman of the board of Dresser-Rand, Inc. and also is a director of Weatherford International Ltd., as well as serving on numerous private energy company boards. In addition, he serves as chairman of the board of the Rogosin Medical Institute and chairman of the advisory board of the City University of New York. Mr Macaulay holds a B.B.A. degree, Magna Cum Laude in Economics from City College of New York and an M.B.A. from the Wharton School of the University of Pennsylvania. He also has received an Honorary Doctor of Humane Letters degree from Baruch College.

Li Ning, aged 54 (Independent Non-Executive Director)

Li Ning was appointed to the Board with effect from 14 April 2011. He has been an executive director of Henderson Land Development Company Limited since 1992. He was also an executive director of Henderson Investment Company Limited from 1990 to 2010. He has also been an executive director of Hong Kong (Ferry) Holdings Company Limited since 1989. Prior to joining the Henderson Group, he began his career in the banking industry with Chekiang First Bank Limited. Mr Li holds a B.Sc. degree from Babson College. Mr Ning also graduated in 1983 from the University of Southern California with an M.B.A. degree.

Key employees

The other key employees of the Glencore group are as follows:

Name	Age	Position
Alex Beard	43	Director oil
Steven Blumgart	37	Co-director alumina/aluminium
Stuart Cutler	51	Co-director ferroalloys/nickel/cobalt
Gary Fegel	37	Co-director alumina/aluminium
Giles Jones	43	Chief Risk Officer
Chris Mahoney	52	Director agricultural products
Richard Marshall	56	General Counsel
Daniel Francisco Maté Badenes	47	Co-director zinc/copper/lead
Aristotelis Mistakidis	49	Co-director zinc/copper/lead
Tor Peterson	46	Director coal/coke
Christian Wolfensberger	40	Co-director ferroalloys/nickel/cobalt

Alex Beard, aged 43 (director oil commodity department), joined Glencore in May 1995 working in the oil commodity department as a marketer, responsible primarily for the CIS region and gaining expertise in high sulphur crudes. He was appointed director of the oil commodity department in February 2007, overseeing all of Glencore's crude oil and oil products marketing, shipping, exploration and production and other oil-related investments, as well as being a director of Chemoil and various other Glencore Group companies. Mr Beard holds an MA degree in biochemistry from Oxford University. Before Glencore, he worked for five years for BP in its crude oil department.

Steven Blumgart, aged 37 (co-director alumina/aluminium commodity department), joined Glencore in Baar, Switzerland in October 1998, where he worked until April 2002 in the coal/coke commodity department, responsible for its industrial assets, before moving on to the alumina/aluminium commodity department. Since January 2006, Mr Blumgart has been co-director of Glencore's alumina/aluminium commodity department, overseeing alumina and industrial asset activities, which involves managing the department's alumina marketing operations and industrial asset acquisition and operating activities. He completed his Bachelor of Commerce (Tax Honours) degree from the University of Witwatersrand, and is a South African Chartered Accountant. In addition, Mr Blumgart holds the Chartered Financial Analyst designation. Prior to joining Glencore, Steven worked for three years at Grant Thornton Kessel Feinstein in Johannesburg.

Stuart Cutler, aged 51 (co-director ferroalloys/nickel/cobalt commodity department), joined Glencore in April 1995. He started in the Johannesburg office where he worked on the South African base metals and ferroalloys desk. From January 1997 to July 1999, he managed the Johannesburg office with overall responsibility for managing the South African base metals and ferroalloys marketing desk and the administrative functions of the office. In August 1999, Mr Cutler joined the nickel/cobalt commodity department in Baar, which merged with the ferroalloys department in 2001, gaining expertise in the bulk alloys industry, including chrome and extensive experience in its marketing operations. He became co-director of the department in November 2005, jointly overseeing the marketing business and industrial assets of the department, including strategy and operations. Mr Cutler holds a B. Proc degree from the University of Witwatersrand. Prior to joining Glencore, Mr Cutler was an attorney and notary public of the Supreme Court of South Africa and a barrister and solicitor of the High Court of New Zealand, and worked as a litigation partner at South African law firm, Werksmans.

Gary Fegel, aged 37 (co-director alumina/aluminium commodity department), joined Glencore in January 2001 in the alumina/aluminium commodity department gaining expertise in logistics, LME and physical marketing. In January 2006, he was appointed as co-director of Glencore's alumina/aluminium commodity department, overseeing the worldwide aluminium business, which involves the buying, marketing and logistics of the metal as well as hedging and risk management. Mr Fegel holds an M.B.A. degree from the University of St. Gallen. Before Glencore, he worked for UBS for four years and Credit Suisse for one year in their respective derivatives departments, being based in Zurich, London and New York.

Giles Jones, aged 43 (Chief Risk Officer), joined Glencore in February 1990 in the oil commodity department, with responsibility for crude oil and products futures and swaps hedging until mid-1994, and then worked as a physical fuel oil marketer, where his responsibilities included negotiating supply contracts and arbitrage strategies. Mr Jones became head of global oil derivatives marketing in January 2007, gaining further expertise in across-the-barrel futures, swaps and options marketing, and his overall responsibilities included price curve setting and market exposure monitoring within the department. Between January 2010 and January 2011, he was chief risk officer of the oil commodity department, leading a team of more than 40 people globally. Mr Jones was appointed as the Chief Risk Officer of Glencore Group in February 2011. As Chief Risk Officer, Mr Jones is responsible for the Glencore Group's overall risk management function. Mr Jones holds an LLB (Honours) in law from University College London.

Chris Mahoney, aged 52 (director Agricultural Products business segment), joined Glencore in September 1998. From September 1998 until November 2002, he was responsible for Glencore's agricultural product activities in the CIS, South Africa and South America. In November 2002, he became director of the Agricultural Products business segment, overseeing all global farming, logistics, processing and marketing businesses, responsible for both strategy and operations. Mr Mahoney holds an MA degree from Oxford University. Before Glencore, he spent 17 years with Cargill, being based in the UK, the U.S., Singapore and Switzerland, and held various management positions in sugar and grain, gaining expertise in the agricultural products industry and marketing operations.

Richard Marshall, aged 56 (General Counsel), joined Glencore as General Counsel in April 2005. As General Counsel, Mr Marshall has responsibilities for overseeing the Glencore Group's overall legal and compliance function. Prior to joining Glencore, Mr Marshall was a partner at Cadwalader Wickersham & Taft LLP in London between September 2003 and March 2005 and a partner at Mallesons Stephen Jaques in Sydney between 1984 and July 2003. Prior to becoming a partner at Mallesons Stephen Jaques, he was an associate in the firm's Sydney office between 1979 and 1984. Mr Marshall completed his law society finals at the College of Law in London in 1978 and was admitted as a solicitor in England and Wales in the same year. He was also admitted as a solicitor in New South Wales, Australia in 1979. He has been an associate member of the Law Society of New South Wales, Australia since 2003.

Daniel Francisco Maté Badenes, aged 47 (co-director zinc/copper/lead commodity department), joined Glencore in October 1988, starting in Glencore's Madrid office, gaining expertise in metals transactions and logistics in Spain and North Africa. After three years in Madrid, he joined the zinc/lead commodity department in Switzerland in August 1991, which merged with the copper department in February 2002, where he was responsible for the zinc and lead concentrates desk for Spain, North Africa and South America, before being appointed in charge of worldwide zinc and lead concentrates marketing. Mr Maté has been co-director of the zinc/copper/lead commodity department since February 2000, jointly overseeing the marketing business and industrial assets of the department, including strategy and

operations. He is also a director of Volcan. Mr Maté holds a Bachelors degree in economics from Universidad Comercial de Deusto, Spain and a Bachelors degree in law from Deusto University of Spain.

Aristotelis Mistakidis, aged 49 (co-director zinc/copper/lead commodity department), joined Glencore in March 1993 in the zinc/lead commodity department, which merged with the copper department in February 2002, where he was responsible for, and gained expertise in, price and risk management and zinc and lead marketing. He has been co-director of the zinc/copper/lead commodity department since February 2000, jointly overseeing the marketing business and industrial assets of the department, including strategy and operations. He is also a director of Katanga and Recylex and is chairman of Mopani. Mr Mistakidis holds a B.Sc. Economics degree from London School of Economics. Before Glencore, he worked at Cargill for six years, where he worked in and gained experience in the non-ferrous metals industry.

Tor Peterson, aged 46 (director coal/coke commodity department), joined Glencore in January 1992 as a marketer and has been working in the coal/coke commodity department ever since, gaining expertise in marketing and coal assets, responsible for various regions including Colombia, Russia and Europe. In January 2002, he was appointed as director of the coal/coke commodity department, succeeding Ivan Glasenberg who moved into the Chief Executive Officer role, and he is responsible for overseeing the global marketing business and industrial assets of the department, including strategy and operations. Mr Peterson holds a Bachelor degree in political science and French from Duke University. Before Glencore, he worked for five years for Phibro-Salomon Inc. as a marketer, being based in New York, London and the Ivory Coast.

Christian Wolfensberger, aged 40 (co-director ferroalloys/nickel/cobalt commodity department), joined Glencore in December 1994, starting in the trade finance department in Switzerland, where he was responsible for arranging financing for global trades. In January 1996, Mr Wolfensberger joined the ferroalloys/nickel/cobalt commodity department in its traffic team, responsible for managing marketing data and logistics, before becoming in charge of the nickel desk, gaining expertise in physical marketing operations. He became co-director of the ferroalloys/nickel/cobalt commodity department in November 2005, jointly overseeing the marketing business and industrial assets of the department, including strategy and operations. He holds an MBA degree from the University of St. Gallen.

Description of ownership structure

Glencore has historically been entirely owned by its employees. Glencore believes that this ownership structure has been an important element of its successful growth since inception. Additionally, assuming no conversion of the Convertible Bonds the Over-Allotment Option is not exercised, the Kazzinc Consideration Shares have not been issued and the Offer Price is set at the mid-point of the Offer Price Range, the number of Ordinary Shares in issue following the Global Offer will be 6,893,292,886, and of these 83.6 per cent. will be held by Existing Shareholders. Consequently, the Company will continue to be primarily owned by Existing Shareholders upon Admission. This ownership structure aligns the interests of Shareholders and employees and has fostered a culture of excellence, teamwork and accountability. In addition, employee ownership helps Glencore to attract new employees of the highest calibre and to retain and motivate existing employees. The fact that Glencore's employees have a significant amount of capital invested in Glencore, with overall compensation structured in favour of longer-term incentives, motivates it to take a long-term view of Glencore's overall performance and to protect the capital of Glencore. Glencore believes that its consistent profitability, the long-term tenure of its management team and its prudent risk management policies have been a direct result of its employee ownership structure.

To continue the strong culture within Glencore based on employee ownership, the Company has put in place two new employee share plans – the Glencore Performance Share Plan and the Glencore Deferred Bonus Plan. These plans are in addition to the annual short-term bonus arrangements in place for the Glencore employees.

No awards have been granted under these plans to date. It is not proposed to make any awards in calendar year 2011 other than awards to new hires and any top-up awards to existing employees necessary to reflect their level of seniority and/or performance in line with their peers (where such top-up awards, if any, are not expected to be material).

Under the Glencore Performance Share Plan, awards of Ordinary Shares will be granted to employees who have already demonstrated excellent performance over a sustained period. It is currently intended that awards granted to Executive Directors will vest after a three-year period subject to the satisfaction of the

agreed performance condition(s), continued employment and clawback and that awards granted to other employees will vest in annual tranches over a five-year period subject only to continued employment and clawback.

Under the Glencore Deferred Bonus Plan, a proportion of annual bonus payable to the Executive Directors will be deferred as an award of shares. It is currently intended that such award will vest over three years subject to continued employment and clawback.

The number of shares which may be issued, or committed to be issued under the Glencore Performance Share Plan and Glencore Deferred Bonus Plan in any 10 year period will not exceed (i) 10 per cent. of the Company's issued ordinary share capital, in respect of any employee share plans operated by the Company; and (ii) 5 per cent. of the Company's issued ordinary share capital, in respect of discretionary employee share plans adopted by the Company. As at the date of Admission, the Company will only have discretionary employee share plans in existence. Shares issued, or committed to be issued, before Admission will not be counted for either of these limits.

The principal features of the Glencore Performance Share Plan and the Glencore Deferred Bonus Plan are summarised under "Glencore employee share plans" in Section X: "Additional Information".

Corporate governance

The Board structure

At Admission, the Board will consist of the Non-Executive Chairman, two Executive Directors and five Non-Executive Directors. The Company regards this as an appropriate Board structure.

The Company regards all of its Non-Executive Directors as independent Non-Executive Directors within the meaning of "independent" as defined in the Code and free from any business or other relationship which could materially interfere with the exercise of their independent judgement. This view was taken having regard to all facts including those below. William Macaulay is chairman and chief executive of First Reserve Corporation ("First Reserve"). First Reserve is the holder of a tranche of the U.S.$2.3 billion Convertible Bonds due 2014 issued by Glencore Finance (Europe) S.A.. Peter Coates was until recently the independent non-executive chairman of Minara, a company listed on the Australian Securities Exchange and 70.6 per cent. owned by Glencore, and was previously a non-executive chairman of Xstrata Australia and a former chief executive of Xstrata Coal, part of Xstrata plc, a listed entity in which Glencore holds a 34.5 per cent. interest. Mr Coates joined Xstrata in 2002 with Glencore's coal assets in Australia and South Africa when they were sold to Xstrata for cash and shares simultaneous with Xstrata's primary listing and capital raising in London.

The Directors support high standards of corporate governance. Following Admission, the Company will comply with the Code. The Company is compliant, as at the date of this document and will continue to comply with the standards expected of them as directors of a Jersey company.

The Directors have established an audit committee, a remuneration committee, a nominations committee, and an environment, health and safety committee.

Audit committee

The audit committee will be chaired by Leonhard Fischer and its other members are Peter Coates and William Macaulay. The audit committee will meet not less than twice a year and will have responsibility for, among other things, monitoring the integrity of Glencore's financial statements and reviewing its summary financial statements. It will oversee Glencore's relationship with its external auditors and review the effectiveness of the external audit process. The committee will give due consideration to laws and regulations, the provisions of the Code and the requirements of the Listing Rules. It will also have responsibility for reviewing the effectiveness of Glencore's system of internal controls and risk management systems. The ultimate responsibility for reviewing and approving the interim and annual financial statements remains with the Directors. The Directors consider that Leonhard Fischer has recent and relevant financial experience. Further details are set out in his biography under the heading "Board of Directors". The audit committee will also be responsible for reviewing, updating and presenting to the Board Glencore's policies on risk management in relation to Glencore's marketing and operational activities.

Remuneration committee

The remuneration committee is chaired by William Macaulay and its other members are Leonhard Fischer and Anthony Hayward. The remuneration committee will meet not less than once a year and will have responsibility for making recommendations to the Board (i) on Glencore's policy on the remuneration of management and (ii) for the determination, within agreed terms of reference, of the remuneration of the Chairman and of specific remuneration packages for each of the Executive Directors and the members of management, including pension rights and any compensation payments. The remuneration committee will also ensure compliance with the Code in this respect.

Nominations committee

The nominations committee is chaired by Anthony Hayward and its other members are Simon Murray, Ivan Glasenberg and Li Ning. The committee will meet not less than once a year and will, with effect from Admission, have responsibility for making recommendations to the Board on the composition of the Board and its committees and on retirements and appointments of additional and replacement Directors and ensuring compliance with the Code.

Environment, health and safety committee

The environment, health and safety committee is chaired by Peter Coates and its other members are Ivan Glasenberg, Anthony Hayward and Michael Fahrbach (the Glencore employee currently responsible for Glencore's environmental, health and safety issues). The committee will meet not less than once a year and will be responsible for formulating and recommending to the Board Glencore's policy on health and safety as well as environmental, security and local community issues as they affect Glencore's operations.

SECTION III: SELECTED HISTORICAL FINANCIAL AND OTHER INFORMATION

Historical financial information

The following selected historical financial data at 31 December 2008, 2009 and 2010 and for each of the three years in the period ended 31 December 2010 has been extracted without material adjustment from the historical consolidated financial information contained in Section VI: "Historical Financial Information" that has been prepared on the basis described in the footnotes to the historical financial information, except for the Non-IFRS Measures, which are defined as explained in "Presentation of Information" and have each been calculated as set out in this Section III. The information in this Section III should be read in conjunction with Section IV: "Operating and Financial Review" and Section VI: "Historical Financial Information" all appearing elsewhere in this Prospectus. Investors should read the whole of this Prospectus before making an investment decision and not rely solely on the summarised information in this Section III.

Income statement data

	2008	2009	2010
		(U.S.$ million)	
Revenue	152,236	106,364	144,978
Cost of goods sold	(147,565)	(103,133)	(140,467)
Selling and administrative expenses	(850)	(839)	(1,063)
Share of income from associates and jointly controlled entities	1,067	82	1,829
(Loss)/gain on sale of investments—net	7	33	(6)
Other (expense)/income—net	(2,960)	35	(8)
Dividend income	238	12	13
Interest income	298	267	281
Interest expense	(1,135)	(854)	(1,217)
Income before income taxes and attribution	1,336	1,967	4,340
Income tax expense	(268)	(238)	(234)
Income before attribution	1,068	1,729	4,106
Attribution to profit participation shareholders	(677)	(650)	(2,460)
Income for the year	391	1,079	1,646
Attributable to:			
Equity holders	367	983	1,291
Non-controlling interests	24	96	355

Balance sheet data

	2008	2009	2010
		(U.S.$ million)	
Non-current assets	24,803	27,551	35,491
Current assets	36,508	38,725	44,296
Total assets	61,311	66,276	79,787
Share capital, reserves and retained earnings, and amounts attributed to profit participation shareholders	15,405	16,686	19,613
Non-controlling interests	906	1,258	2,894
Invested capital	16,311	17,944	22,507
Other non-current liabilities	14,294	17,751	20,442
Total assets net of current liabilities	30,605	35,695	42,949
Current liabilities	30,706	30,581	36,838
Total equity and liabilities	61,311	66,276	79,787

Cash flow data

	2008	2009	2010
	(U.S.$ million)		
Cash generated by operating activities before working capital changes	4,587	3,095	4,234
Net cash generated/(used) by operating activities after working capital and net interest and income tax payments	5,960	(3,010)	111
Net cash used by investing activities	(2,950)	(1,164)	(4,755)
Net cash generated/(used) by financing activities	(2,842)	4,208	5,247
Increase in cash and cash equivalents	168	34	603
Cash and cash equivalents, beginning of year	658	826	860
Cash and cash equivalents, end of year	826	860	1,463

Other financial data and ratios

	2008	2009	2010
	(U.S.$ million)		
Adjusted EBITDA[1][5] (unaudited)	5,701	3,108	6,201
Marketing activities	2,874	1,576	2,367
Industrial activities	2,827	1,532	3,834
Adjusted EBITDA pre-exceptional items[2][5]	6,787	3,929	6,201
Marketing activities	3,215	1,606	2,367
Industrial activities[9]	3,572	2,323	3,834
Kazzinc (unaudited)	473	637	815
Other Zinc (unaudited)	97	62	225
Katanga (unaudited)	—	48	168
Mopani (unaudited)	94	118	218
Other Copper (unaudited)	288	205	214
Aluminium/Alumina (unaudited)	34	(117)	(9)
Ferroalloys/Nickel/Cobalt (unaudited)	113	119	189
Oil (unaudited)	32	57	(12)
Prodeco (unaudited)	426	218	278
Other Coal (unaudited)	201	96	47
Agricultural Products (unaudited)	95	85	88
Corporate and other (incl. Xstrata) (unaudited)	1,536	764	1,500
Share of income from associates and dividends (excl. Xstrata) (unaudited)	183	31	113
Adjusted EBIT[3][5]	5,126	2,486	5,290
Marketing activities	2,861	1,561	2,337
Industrial activities	2,265	925	2,953
Adjusted EBIT pre-exceptional items[4][5]	6,212	3,307	5,290
Marketing activities	3,202	1,591	2,337
Industrial activities[9]	3,010	1,716	2,953
Kazzinc (unaudited)	357	490	579
Other Zinc (unaudited)	(34)	(28)	115
Katanga (unaudited)	—	39	109
Mopani (unaudited)	44	(21)	68
Other Copper (unaudited)	256	175	179
Aluminium/Alumina (unaudited)	22	(125)	(17)
Ferroalloys/Nickel/Cobalt (unaudited)	13	21	79
Oil (unaudited)	28	49	(24)
Prodeco (unaudited)	349	206	199
Other Coal (unaudited)	172	67	14
Agricultural Products (unaudited)	84	48	39
Corporate and other (incl. Xstrata) (unaudited)	1,536	764	1,500
Share of income from associates and dividends (excl. Xstrata) (unaudited)	183	31	113

	2008	2009	2010
	(U.S.$ million)		
Gross debt (unaudited)[6]	18,316	24,066	30,616
Marketing activities	N/A	10,197	12,835
Industrial activities	N/A	13,869	17,781
Interest expense pre-exceptional items—net (unaudited)[7]	(837)	(587)	(897)
Marketing activities (unaudited)	N/A	N/A	(299)
Industrial activities (unaudited)	N/A	N/A	(598)
Capital expenditure	(1,875)	(1,116)	(1,890)
Kazzinc (unaudited)	(568)	(367)	(350)
Other Zinc (unaudited)	(166)	(48)	(110)
Katanga (unaudited)	—	(62)	(221)
Mopani (unaudited)	(137)	(58)	(130)
Other Copper (unaudited)	(40)	(43)	(92)
Aluminium/Alumina (unaudited)	(13)	(19)	(31)
Ferroalloys/Nickel/Cobalt (unaudited)	(138)	(10)	(67)
Oil (unaudited)	(350)	(144)	(514)
Prodeco (unaudited)	(309)	(242)	(277)
Other Coal (unaudited)	(39)	(7)	(27)
Agricultural Products (unaudited)	(102)	(116)	(71)
Other (unaudited)	(13)	0	0
Current ratio (x) (unaudited)	1.19	1.27	1.20
Current capital employed[10] plus listed associates (at carrying value) to Gross debt[6] (x) (unaudited)	1.22	1.26	1.15
Net debt (unaudited)[6]	11,500	10,186	14,756
FFO[8]/Net debt[6] (%) (unaudited)	31.6	22.9	22.6
Adjusted EBITDA pre-exceptional items[2]/Net interest (x) (unaudited)	8.11	6.69	6.91
Income before attribution—pre-exceptional items	4,824	2,820	4,007
Income before attribution	1,068	1,729	4,106

Notes:

(1) Adjusted EBITDA consists of revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the consolidated statement of income plus depreciation and amortization.

(2) Adjusted EBITDA pre-exceptional items consists of Adjusted EBITDA as defined above, excluding exceptional items. Exceptional items represent significant items of income and expense which, due to their financial impacts, nature or the expected infrequency of the events giving rise to them, have been separated for internal reporting and analysis of Glencore's results. Exceptional items mainly include impairment charges on inventories and other assets.

(3) Adjusted EBIT consists of revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the consolidated statements of income.

(4) Adjusted EBIT pre-exceptional items consists of Adjusted EBIT as defined above, excluding exceptional items. Exceptional items represent items of income and expense, which, due to their financial impacts, nature or the expected infrequency of the events giving rise to them, have been separated for internal reporting and analysis of Glencore's results. Exceptional items mainly include impairment charges on inventories and other assets.

(5) Adjusted EBITDA, Adjusted EBIT, Adjusted EBITDA pre-exceptional items and Adjusted EBIT pre-exceptional items are not typically measures of operating income, operating performance or liquidity under IFRS; however, Glencore has presented these measures in this Prospectus as Glencore understands that some investors use these measures to determine a company's ability to service indebtedness and fund ongoing capital expenditure and dividends. Investors should not consider these measures in isolation, or as a substitute for income from operations, income for the year, cash flows from operating activities, as determined in accordance with IFRS, as an indicator of operating performance.

The following table is a composition of the key line items on the face of the consolidated statement of income that comprises Adjusted EBIT and reconciles Adjusted EBIT pre exceptional items, Adjusted EBITDA and Adjusted EBITDA

pre-exceptional items for the periods indicated. A reconciliation to net income before attribution is provided in the Adjusted financial information by business segment section of Section III:

	2008	2009	2010
		(U.S.$ million)	
Revenue	152,236	106,364	144,978
Cost of goods sold	(147,565)	(103,133)	(140,467)
Selling and administrative expenses	(850)	(839)	(1,063)
Share of income from associates and jointly controlled entities	1,067	82	1,829
Dividend income	238	12	13
Adjusted EBIT	5,126	2,486	5,290
Addback exceptional items	1,086	821	0
Adjusted EBIT pre-exceptional items	6,212	3,307	5,290
Addback depreciation and amortisation	575	622	911
Adjusted EBITDA pre-exceptional items	6,787	3,929	6,201
Deduct exceptional items excluded above	(1,086)	(821)	0
Adjusted EBITDA	5,701	3,108	6,201

(6) Gross debt includes Current borrowings, Non-current borrowings and commodities sold with agreements to repurchase. It excludes amounts owing under the Prodeco call option arrangement and other financial liabilities. Net debt is gross debt less cash and cash equivalents, marketable securities and Glencore's assessment of readily marketable inventories. In calculating the illustrative allocation of borrowings to the marketing activities, Glencore has estimated what it believes to be the reasonable amount of borrowings attributable to funding the marketing activities' working capital requirements at the relevant period end date, with particular reference to the level of inventories, net cash margining and other accounts receivable and payable. The balance of group borrowings is allocated to industrial activities. See "—Notional allocation of debt and interest expense—Total gross debt outstanding".

(7) In calculating the illustrative allocation of interest expense to the marketing activities, Glencore has taken into consideration the average amount of borrowings illustratively allocated to marketing activities as described in the preceding paragraph for the relevant period, what Glencore believes to be the appropriate distribution of funding tenors for the categories of funded assets within the marketing activities, and the average rate of interest incurred by the group during the relevant period on borrowings of the relevant tenor and interest basis. The balance of group interest expense is allocated to industrial activities. See "—Notional allocation of debt and interest expense—Illustrative gross interest expense allocation between Marketing and Industrial activities".

(8) Funds From Operations ("FFO") equals cash provided by operating activities before working capital changes less tax and net interest payments plus dividends received.

(9)

	2008							
	Kazzinc	Other Zinc	Mopani	Other Copper	Ferroalloys/ nickel/ cobalt	Corporate other (incl Xstrata)	Share of income from associates and dividends (excl Xstrata)	Total
					(U.S.$ million)			
Inventory impairments	6	20	59	0	9	0	0	94
Provisional pricing adjustments	42	66	0	56	47	0	0	211
Severance and related costs	0	17	2	0	6	0	0	25
Asset impairment charges	0	0	0	0	0	389	26	415
Total	48	103	61	56	62	389	26	745

	2009							
	Kazzinc	Other Zinc	Mopani	Other Copper	Ferroalloys/ nickel/ cobalt	Corporate other (incl Xstrata)	Share of income from associates and dividends (excl Xstrata)	Total
					(U.S.$ million)			
Inventory impairments	0	0	6	0	0	0	0	6
Provisional pricing adjustments	0	0	0	24	0	0	0	24
Severance and related costs	0	0	0	0	0	0	0	0
Asset impairment charges	0	0	0	0	0	736	25	761
Total	0	0	6	24	0	736	25	791

(10) Current capital employed is current assets, presented before assets held for sale, less accounts payable, other financial liabilities and income tax payable.

Additional financial information

In the following three sections (non-current assets summary, notional allocation of debt and interest expense, and non-controlling interests' share of gross debt), additional information is provided, which Glencore considers relevant to assist in the understanding of overall performance and underlying value contributors of its integrated business model.

1. Non-current assets summary as at 31 December 2010

The following table provides a summary of the carrying value of non-current assets in the Group's balance sheet, comprising the assets disclosed and detailed in this Prospectus and the remaining being primarily, investments and loans extended in support of Glencore's growth in marketing and industrial activities of the respective segment.

	Book value as at 31 December 2010
	(U.S.$ million) (unaudited, except total lines)
Property, plant and equipment	
Industrial assets covered by MERs[1]	7,877
Other core industrial assets[2]	1,712
Listed subsidiaries[3]	1,672
Various agricultural assets[4]	550
Various smaller energy assets[5]	222
Various smaller mineral and metal assets[6]	55
Total property, plant and equipment (audited)	**12,088**
Investments in associates and jointly controlled entities	
Listed assets[7]	15,511
Selected core associates[8]	431
Other energy associates[9]	514
Other metal and mineral associates[10]	156
Other agricultural associates[11]	154
Total associates and jointly controlled entities (audited)	**16,766**
Other investments	
Listed assets[12]	2,376
Other metal and mineral investments	26
Other energy investments	36
Total other investments (audited)	**2,438**
Long-term loans	
Loans related to selected core assets[13]	843
RussNeft loan[14]	2,082
Secured long-term trade advances[15]	530
Other long-term loans	375
Total long-term loans (audited)	**3,830**

Notes:

(1) Kazzinc, Mopani, Katanga and Prodeco.

(2) E&P Portfolio, Sherwin, Shanduka, Los Quenuales, Portovesme, Sinchi Wayra, A R Zinc, Pasar, Cobar and Punitaqui.

(3) Murrin Murrin, Chemoil and Biopetrol.

(4) Includes farming, crushing and storage operations.

(5) Majority oil vessels plus storage facilities.

(6) Includes Columbia Falls.

(7) Xstrata, Century Aluminum and Recylex.

(8) Including Novoshirokinskoe (within Kazzinc), Mutanda and Fenoco (within Prodeco).

(9) Mainly shipping assets (U.S.$357 million) and various logistics operations. Due to the staggered delivery schedule of vessels up to 2012, no meaningful earnings have been reported in the historical period.

(10) Primarily operations and exploration/development projects in Africa.

(11) Various agricultural operations.

(12) Including UC Rusal, Volcan, Nyrstar and Polymet. Earnings from investment in UC Rusal only recognised via dividends, which last occurred in 2008.

(13) Comprising project loans/loans to equity partners in Mutanda and E&P Portfolio, which will be repaid from the future expected cashflows generated by these projects.

(14) Interest bearing at 9 per cent. (3 per cent. cash, 6 per cent. delayed payment terms). Please see Section I: "Information on Glencore" for further details. Russneft interest has comprised the largest individual component of interest received during the historical period.

(15) Including U.S.$200 million secured loan to PT Bakrie & Brothers Tbk.

2. Notional allocation of debt and interest expense

Most of Glencore's indebtedness is incurred centrally with the proceeds then applied to marketing or industrial activities as required.

Glencore does not allocate borrowings or interest to its three operating segments or its marketing and industrial activities. However, to assist investors in assessing the profitability of its marketing and industrial activities separately, Glencore has prepared an illustrative allocation of its borrowings and interest expense between the marketing and industrial activities based on the methodology described below. Notwithstanding Glencore's belief in its reasonableness, the allocation of borrowings and interest expense between Glencore's marketing and industrial activities shown below is illustrative only and should not be considered representative of the level of indebtedness or interest expense such activities had, in the past, or would have had, if they were stand-alone businesses or that Glencore will have in the future.

In calculating the illustrative allocation of borrowings to the marketing activities, Glencore has estimated what it believes to be the reasonable amount of borrowing capacity attributable to marketing activities at the relevant period end date, with particular reference to the level of inventories, net cash margining and other accounts receivable and payable. The balance of group borrowings is allocated to industrial activities.

In calculating the illustrative allocation of interest expense to the marketing activities, Glencore has taken into consideration the average amount of borrowings illustratively allocated to marketing activities as described in the preceding paragraph for the relevant period, what Glencore believes to be the appropriate distribution of funding tenors for the categories of funded assets within the marketing activities, and the average rate of interest incurred by the group during the relevant period on borrowings of the relevant tenor and interest basis. The balance of group interest expense is allocated to industrial activities.

Illustrative debt funding allocation between Marketing and Industrial activities

	Group As at 31 December 2010	Allocated to		As at 31 December 2010	Illustrative Marketing		
		Marketing Activities	Industrial Activities		% Debt funding[3]	Debt funded	Equity funded
				(U.S.$ million) (unaudited)			
Cash, cash equivalents and marketable securities	1,529		X				
Production inventories	2,805		X				
Readily marketable inventories	14,331	X		14,331	85%	12,181	2,150
Other inventories	257	X		257	20%	51	206
Net receivables/(payables) excluding cash margining	(172)	X		(172)	80%	(137)	(35)
Net brokers (cash margin only)	2,753	X		2,753	90%	2,478	275
Net fair value of trade related financial instruments	(2,084)	X		(2,084)	85%	(1,771)	(313)
Other net assets/liabilities[1][2]	404	X	X	165	20%	33	132
Current capital employed[2]	19,823			15,250		12,835	2,415

Notes:

(1) Allocated between marketing activities and industrial assets based on percentage split per underlying accounting records and nature of the balance.

(2) Includes assets and liabilities held for sale.

(3) Based on the terms of Glencore's existing dedicated facilities which finance a portion of its receivables and marketing inventory.

Total gross debt outstanding

	As at 31 December 2009[2]	As at 31 December 2010	2010 average[1]
		(U.S.$ million) (unaudited)	
Marketing activities	10,197	12,835	10,460
Industrial activities[3]	13,869	17,781	15,663
Total gross debt	**24,066**	**30,616**	**26,123**

Notes:

(1) Based on quarterly averages.

(2) The gross debt amounts allocated to marketing and industrial activities as at 31 December 2009 is based upon the same methodologies as the calculation of gross debt for such activities as at 31 December 2010. See "Illustrative debt funding allocation between Marketing and Industrial activities" above.

(3) Including Glencore's stake in Xstrata.

Illustrative gross interest expense allocation between Marketing and Industrial activities

	2010
	(U.S.$ million) (unaudited)
Average variable funding rate[1]— Marketing	2.86%
Blended residual funding rate[2]—Industrial	6.51%
Variable rate interest expenses	
Allocated to Marketing activities[3]	299
Allocated to Industrial activities[3]	252
Total variable rate interest expense[4]	**551**
Fixed-rate interest expense	
Allocated to Marketing activities[5]	—
Allocated to Industrial activities[5]	627
Total fixed-rate interest expense	**627**
Interest expense	
Allocated to Marketing activities	299
Allocated to Industrial activities	879
Total interest expenses[4]	**1,178**

Notes:

(1) The average variable funding rate was calculated based on the actual weekly average variable rate incurred during 2010.

(2) The blended residual funding rate is the average rate attributable to industrial activities, representing the residual interest expense allocated to industrial activities as a percentage of its average gross debt allocation.

(3) The allocation of variable rate interest was done based upon the 2010 average variable gross debt outstanding for marketing and industrial activities at the average variable funding rate.

(4) Excluding U.S.$39 million of capitalised borrowing costs written off.

(5) The allocation of fixed rate interest expense was entirely to Glencore's industrial activities, as Glencore does not utilise fixed-rate borrowings in its marketing activities. Such borrowings are typically long-term public bonds to better match the maturity profile of Glencore's industrial assets.

3. Non-controlling interests' share of gross debt

Certain subsidiaries in which Glencore does not hold a 100 per cent. interest in are funded either directly with third party debt or indirectly from Glencore and its third party debt. Glencore's gross consolidated debt is reported below, before any adjustment for the non-controlling interests' share of the gross debt. The table below sets out the debt of the main industrial subsidiaries in which Glencore holds a less than 100 per cent. interest and Glencore's attribution of such debt to the non-controlling interests in proportion to their shareholdings.

	Total[1]	Non-controlling interest in subsidiary	Non-controlling interests' share of gross debt
		(U.S.$ million) (unaudited)	
Mopani Group	601	27%	162
Katanga Mining Limited	120	26%	31
Kazzinc[2]	1,071	49%	525
Minara Resources Ltd	23	29%	7
Shanduka Coal (Pty) Limited	48	30%	14
Biopetrol Industries AG	72	40%	29
Rio Vermelho Acucar e Alcool SA	20	24%	5
Total	1,955		773

Notes:

(1) Includes external debt and group funding.

(2) Glencore has agreed with Verny to acquire additional stakes in Kazzinc. These purchases will increase its ownership from 50.7 per cent. to 93.0 per cent. for a total transaction consideration of $3.2 billion. Subject to the satisfaction of certain conditions, the consideration will be settled through the issuance of U.S.$1 billion of Ordinary Shares at the Offer Price (such issuance expected to occur at the earlier of UK Admission and satisfaction of applicable conditions precedent) and U.S.$2.2 billion in cash (to be paid in tranches between October and December 2011). See Section X: "Additional Information" for further details of these purchases and the terms of the Kazzinc SPAs.

Adjusted financial information

Glencore believes that its overall business performance cannot be judged solely on its historical financial information contained in Section VI: "Historical Financial Information", which has been prepared in accordance with IFRS. Glencore looks at the performance of its business on an adjusted basis, or before exceptional items. Exceptional items represent significant items of income and expense which, due to their nature or the expected infrequency of the events giving rise to them, are separated for internal reporting and analysis of Glencore's results. Glencore believes this provides the entity and investors with a better understanding and comparative basis of its underlying financial performance.

Exceptional items

The table below sets forth, for the year ended 31 December 2008, certain selected line items extracted without material adjustment from the historical financial information contained in Section VI: "Historical Financial Information", and the aggregate effect of certain exceptional items on such historical financial information, and on the non-IFRS measures of Adjusted EBITDA and Adjusted EBIT as defined in "Presentation of Information".

2008	Historical financial information (audited)	Exceptional items (unaudited)	Pre-exceptional financials (unaudited)
		(U.S.$ million)	
Revenue	152,236	0	152,236
Cost of goods sold	(147,565)	672[1]	(146,893)
Selling and administrative expenses	(850)	0	(850)
Share of income from associates and jointly controlled entities	1,067	415[2]	1,482
Gain/(loss) on sale of investments—net	7	(7)[3]	0
Other income/(expense)—net	(2,960)	2,763[4]	(197)
Dividend income	238	0	238
Interest income	298	0	298
Interest expense	(1,135)	0	(1,135)
Income before income taxes and attribution	1,336	3,843	5,179
Income tax expense	(268)	(87)[5]	(355)
Income before attribution	1,068	3,756	4,824
Attribution to profit participation shareholders	(677)	0	(677)
Income for the year	391	3,756	4,147
Adjusted EBITDA (audited)	5,701	1,086	6,787
Adjusted EBIT (audited)	5,126	1,086	6,212

Notes:

(1) Inventory net realisable value adjustments of U.S.$435 million and severance and other adjustments of U.S.$237 million recognised in the Metals and Minerals business segment.

(2) Glencore's share of asset impairment charges booked directly by Xstrata (U.S.$389 million) and Century Aluminum (U.S.$26 million).

(3) Net gain realised in relation to a number of immaterial disposals of investments.

(4) Impairment charges in relation to investments in associates and other investments and property, plant and equipment.

(5) Tax-related adjustments related to the above exceptional charges.

In 2008, Glencore recognised U.S.$3,756 million of exceptional items, including U.S.$2,763 million related to asset impairments, following Glencore's regular review of asset carrying values. These recorded impairments were brought on by the rapid and severe impacts arising from the global financial crisis, which ultimately resulted in substantially lower commodity prices. Specifically, U.S.$1.7 billion of the impairment expense was booked against the Xstrata and Century Aluminum carrying values, with the remaining balance relating to the various other cumulative impairments arising primarily from decisions taken to curtail and/or suspend various mining or expansion activities.

Also in 2008, Glencore recognised negative provisional pricing adjustments of U.S.$211 million at Glencore's industrial operations and inventory net realisable value adjustments of U.S.$435 million, as a result of the severe and rapid decrease in commodity prices in the final quarter of 2008. While the vast

majority of Glencore's marketing inventories are contractually sold or hedged, the remaining inventory, primarily relating to those commodities where terminal hedging markets do not exist or are very limited, was subject to inventory net realisable value adjustments of U.S.$341 million (included in the U.S.$435 million above).

In addition, Glencore's share of income from its associate Xstrata included various impairment charges booked directly by Xstrata totalling U.S.$415 million.

The table below sets forth, for the year ended 31 December 2009, certain selected line items extracted without material adjustment from the historical financial information contained in Section VI: "Historical Financial Information" and the aggregate effect on such historical financial information and on the non-IFRS measures of Adjusted EBITDA and Adjusted EBIT as defined in "Presentation of Information".

2009	Historical financial information (audited)	Exceptional items (unaudited)	Pre-exceptional financials (unaudited)
		(U.S.$ million)	
Revenue	106,364	0	106,364
Cost of goods sold	(103,133)	60[1]	(103,073)
Selling and administrative expenses	(839)	0	(839)
Share of income from associates and jointly controlled entities	82	761[2]	843
Gain/(loss) on sale of investments—net	33	(33)[3]	0
Other income/(expense)—net	35	303[4]	338
Dividend income	12	0	12
Interest income	267	0	267
Interest expense	(854)	0	(854)
Income before income taxes and attribution	1,967	1,091	3,058
Income tax expense	(238)	0	(238)
Income before attribution	1,729	1,091	2,820
Attribution to profit participation shareholders	(650)	0	(650)
Income for the year	1,079	1,091	2,170
Adjusted EBITDA (audited)	3,108	821	3,929
Adjusted EBIT (audited)	2,486	821	3,307

Notes:

(1) Inventory net realisable value adjustments of U.S.$30 million and severance and other adjustments of U.S.$30 million recognised in the Metals and Minerals business segment.

(2) Glencore's share of asset impairment charges booked directly by Xstrata (U.S.$736 million) and Century Aluminum (U.S.$25 million).

(3) Gain on the disposal of the East Tennessee Zinc operations (U.S.$97 million) offset by a loss on disposal of the 51 per cent. interest in Refineria de Cartagena S.A. and a dilution loss, following Xstrata's 2009 capital raising, which saw Glencore's effective ownership in Xstrata reduce from 35.2 per cent. to 34.9 per cent.

(4) Expenses associated with the Prodeco call option arrangement with Xstrata.

In 2009, Glencore recognised U.S.$1,091 million of exceptional items, which consisted primarily of its share of asset impairment charges booked directly by Xstrata (U.S.$736 million) and Century Aluminum (U.S.$25 million) and costs related to the Prodeco call option (U.S.$303 million). In March 2009, Xstrata acquired Glencore's Colombian Coal Group (Prodeco) for U.S.$2 billion and concurrently granted an option to Glencore to repurchase Prodeco within 12 months for U.S.$2.25 billion plus profits accrued during the option period and the net balance of any cash invested. Given the repurchase option, the Prodeco business, consolidated by Glencore, was not de-recognised and the fair value of the proceeds was accounted for as a liability. As at 31 December 2009, U.S.$303 million of expenses were accrued under this option arrangement.

The table below sets forth for the year ended 31 December 2010 certain selected line items extracted from the historical financial information contained in Section VI: "Historical Financial Information", and the aggregate effect of certain exceptional items on such historical financial information, and on the non-IFRS measures of Adjusted EBITDA and Adjusted EBIT as defined in "Presentation of Information".

2010	Historical financial information (audited)	Exceptional items (unaudited)	Pre-exceptional financials (unaudited)
		(U.S.$ million)	
Revenue	144,978	0	144,978
Cost of goods sold	(140,467)	0	(140,467)
Selling and administrative expenses	(1,063)	0	(1,063)
Share of income from associates and jointly controlled entities	1,829	0	1,829
Gain/(loss) on sale of investments—net	(6)	6	0
Other income/(expense)—net	(8)	(144)[1]	(152)
Dividend income	13	0	13
Interest income	281	0	281
Interest expense	(1,217)	39[2]	(1,178)
Income before income taxes and attribution	4,340	(99)	4,241
Income tax expense	(234)	0	(234)
Income before attribution	4,106	(99)	4,007
Attribution to profit participation shareholders	(2,460)	0	(2,460)
Income for the year	1,646	(99)	1,547
Adjusted EBITDA (audited)	6,201	0	6,201
Adjusted EBIT (audited)	5,290	0	5,290

Notes:

(1) Net of exceptional expenses of U.S.$1,038 million and exceptional income of U.S.$1,182 million as detailed below.

(2) U.S.$39 million write-off of capitalised borrowing costs.

In 2010, Glencore recognised a net U.S.$99 million of exceptional items. Exceptional expenses of U.S.$1,038 million primarily arose from negative mark to market fair value movements on certain fixed price forward coal sale contracts relating to Prodeco's future production that will be physically delivered that did not qualify for "own use" or cash flow hedge treatment (U.S.$790 million) and U.S.$225 million from the Prodeco call option transaction entered into in 2009 described above. The expenses were offset with exceptional income of U.S.$1,182 million resulting from the reversal of impairments incurred in 2008 against Glencore's interest in Xstrata following an upward revision of long-term base metals and coal price assumptions (U.S.$674 million), a net gain of U.S.$462 million arising from the revaluation of previously held interests in Vasilkovskoje Gold following the acquisition of the remaining 60 per cent. interest not previously owned and a net gain of U.S.$46 million arising from the debt amendment and restatement and impairment of Russneft related loans and investment, respectively.

Adjusted financial information by business segment

Glencore is organised and operated on a worldwide basis in three major business segments—Metals and Minerals, Energy Products and Agricultural Products, reflecting the structure used by Glencore's management to assess the performance of Glencore. The following selected historical financial data as at 31 December 2008, 2009 and 2010 and for each of the three years in the period ended 31 December 2010 have been extracted without material adjustment from the historical financial information contained in Section VI: "Historical Financial Information" that has been prepared on the basis described in the footnotes to the historical financial information, with the exception of the Non-IFRS Measures, which are defined in "Presentation of Information" and calculated in Section VI: "Historical Financial Information".

2008	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Revenue					
Revenue from third parties	40,685	98,157	13,394	0	152,236
Marketing activities					
Adjusted EBIT[3]	776	1,609	579	(103)	2,861
Exceptional items included above	341	0	0	0	341
Adjusted EBIT pre-exceptional items	1,117	1,609	579	(103)	3,202
Depreciation and amortisation	0	0	0	13	13
Adjusted EBITDA pre-exceptional items	1,117	1,609	579	(90)	3,215
Industrial activities					
Adjusted EBIT[3]	497	522	99	1,147	2,265
Exceptional items included above	356	0	0	389	745
Adjusted EBIT pre-exceptional items	853	522	99	1,536	3,010
Depreciation and amortisation	441	110	11	0	562
Adjusted EBITDA pre-exceptional items	1,294	632	110	1,536	3,572
Total adjusted EBITDA pre-exceptional items[4]	2,411	2,241	689	1,446	6,787
Depreciation and amortisation excluded above	(441)	(110)	(11)	(13)	(575)
Total Adjusted EBIT pre-exceptional items	1,970	2,131	678	1,433	6,212
Exceptional items excluded above					(1,086)
Interest expense—net					(837)
(Loss)/gain on sale of investments—net					7
Other (expense)/income—net					(2,960)
Income tax expense					(268)
Income before attribution					1,068
Current assets	16,257	14,746	2,315	2,251	35,569
Current liabilities	(10,538)	(10,900)	(1,331)	(2,692)	(25,461)
Allocatable current capital employed	5,719	3,846	984	(441)	10,108
Property, plant and equipment	4,859	1,587	413	0	6,859
Investments in associates and other investments	2,421	1,453	95	12,060	16,029
Non-current advances and loans	494	1,243	25	64	1,826
Allocatable non-current capital employed	7,774	4,283	533	12,124	24,714
Other assets[1]	0	0	0	1,028	1,028
Other liabilities[2]	0	0	0	(19,539)	(19,539)
Total net assets	13,493	8,129	1,517	(6,828)	16,311
Included in property, plant and equipment are:					
Additions	1,062	698	102	13	1,875

Notes:

(1) Other assets include deferred tax assets, cash and cash equivalents, marketable securities and assets held for sale.

(2) Other liabilities include borrowings, deferred income, deferred tax liabilities, provisions, commodities sold with agreements to repurchase and Prodeco call option arrangement.

(3) Adjusted EBIT of U.S.$5,126 million represents Adjusted EBIT pre-exceptional items of U.S.$6,212 million less exceptional items of U.S.$1,086 million.

(4) Adjusted EBITDA OF U.S.$5,701 million represents Adjusted EBITDA pre-exceptional items of U.S.$6,787 million less exceptional items of U.S.$1,086 million.

2009	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Revenue					
Revenue from third parties	35,391	62,391	8,582	0	106,364
Marketing activities					
Adjusted EBIT[3]	523	945	304	(211)	1,561
Exceptional items included above	30	0	0	0	30
Adjusted EBIT pre-exceptional items	553	945	304	(211)	1,591
Depreciation and amortisation	0	0	0	15	15
Adjusted EBITDA pre-exceptional items	553	945	304	(196)	1,606
Industrial activities					
Adjusted EBIT[3]	443	413	41	28	925
Exceptional items included above	55	0	0	736	791
Adjusted EBIT pre-exceptional items	498	413	41	764	1,716
Depreciation and amortisation	521	49	37	0	607
Adjusted EBITDA pre-exceptional items	1,019	462	78	764	2,323
Total adjusted EBITDA pre-exceptional items[4]	1,572	1,407	382	568	3,929
Depreciation and amortisation excluded above	(521)	(49)	(37)	(15)	(622)
Total Adjusted EBIT pre-exceptional items	1,051	1,358	345	553	3,307
Exceptional items excluded above					(821)
Interest expense—net					(587)
(Loss)/gain on sale of investments—net					33
Other (expense)/income—net					35
Income tax expense					(238)
Income before attribution					1,729
Current assets	18,244	13,860	2,294	2,043	36,441
Current liabilities	(9,759)	(6,844)	(882)	(2,894)	(20,379)
Allocatable current capital employed	8,485	7,016	1,412	(851)	16,062
Property, plant and equipment	5,672	679	494	0	6,845
Investments in associates and other investments	2,129	924	41	14,989	18,083
Non-current advances and loans	1,054	1,382	34	65	2,535
Allocatable non-current capital employed	8,855	2,985	569	15,054	27,463
Other assets[1]	0	0	0	2,372	2,372
Other liabilities[2]	0	0	0	(27,953)	(27,953)
Total net assets	17,340	10,001	1,981	(11,378)	17,944
Included in property, plant and equipment are:					
Additions	607	393	116	0	1,116

Notes:

(1) Other assets include deferred tax assets, cash and cash equivalents, marketable securities and assets held for sale.

(2) Other liabilities include borrowings, deferred income, deferred tax liabilities, provisions, commodities sold with agreements to repurchase, Prodeco call option arrangement and liabilities held for sale.

(3) Adjusted EBIT of U.S.$2,486 million represents Adjusted EBIT pre-exceptional items of U.S.$3,307 million less exceptional items of U.S.$821 million.

(4) Adjusted EBITDA of U.S.$3,108 million represents Adjusted EBITDA pre-exceptional items of U.S.$3,929 million less exceptional items of U.S.$821 million.

2010	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Revenue					
Revenue from third parties	45,211	89,349	10,418	0	144,978
Marketing activities					
Adjusted EBIT[3]	1,401	450	659	(173)	2,337
Depreciation and amortisation	0	20	0	10	30
Adjusted EBITDA	1,401	470	659	(163)	2,367
Industrial activities					
Adjusted EBIT[3]	1,160	235	58	1,500	2,953
Depreciation and amortisation	708	124	49	0	881
Adjusted EBITDA	1,868	359	107	1,500	3,834
Total adjusted EBITDA[4]	3,269	829	766	1,337	6,201
Depreciation and amortisation excluded above	(708)	(144)	(49)	(10)	(911)
Total Adjusted EBIT pre-exceptional items	2,561	685	717	1,327	5,290
Interest expense—net					(936)
(Loss)/gain on sale of investments—net					(6)
Other (expense)/income/—net					(8)
Income tax expense					(234)
Income before attribution					4,106
Current assets	17,901	15,759	5,958	2,869	42,487
Current liabilities	(8,597)	(11,237)	(2,000)	(2,594)	(24,428)
Allocatable current capital employed	9,304	4,522	3,958	275	18,059
Property, plant and equipment	8,860	2,489	739	0	12,088
Investments in associates and other investments	2,134	1,108	157	15,805	19,204
Non-current advances and loans	813	2,832	113	72	3,830
Allocatable non-current capital employed	11,807	6,429	1,009	15,877	35,122
Other assets[1]	0	0	0	2,178	2,178
Other liabilities[2]	0	0	0	(32,852)	(32,852)
Total net assets	21,111	10,951	4,967	(14,522)	22,507
Included in property, plant and equipment are:					
Additions	1,001	818	71	0	1,890

Notes:

(1) Other assets include deferred tax assets, cash and cash equivalents, marketable securities and assets held for sale.

(2) Other liabilities include borrowings, deferred income, deferred tax liabilities, provisions, commodities sold with agreements to repurchase, Prodeco call option arrangement and liabilities held for sale.

(3) Adjusted EBIT of U.S.$5,290 million equals Adjusted EBIT pre-exceptionals.

(4) Adjusted EBITDA of U.S.$6,201 million equals Adjusted EBITDA pre-exceptionals.

Other operating and industry data

Average market prices

The following table sets out the indicative average market prices in U.S. dollars for the main commodities which Glencore produces and/or markets for the periods indicated:

		Six months ended						One month ended	
	Units	30 June 2008	31 December 2008	30 June 2009	31 December 2009	30 June 2010	31 December 2010	31 January 2011	28 February 2011
Metals and Minerals									
Zinc[1]	U.S.$/MT	2,283	1,487	1,330	1,986	2,156	2,165	2,376	2,473
Copper[1]	U.S.$/MT	8,136	5,791	4,067	6,261	7,129	7,947	9,553	9,881
Lead[1]	U.S.$/MT	2,606	1,581	1,333	2,105	2,083	2,214	2,584	2,596
Gold[2]	U.S.$/oz	911	832	915	1,031	1,152	1,297	1,356	1,373
Silver[2]	U.S.$/oz	17	13	13	16	18	23	28	31
Aluminium[1]	U.S.$/MT	2,850	2,306	1,429	1,908	2,130	2,216	2,440	2,515
Nickel[1]	U.S.$/MT	27,321	14,961	11,780	17,553	21,217	22,403	25,621	28,412
Cobalt[3]	U.S.$/lb	48.1	28.8	15.3	19.4	21.7	19.4	19.9	20.0
Ferro-Chrome[3]	U.S.$/lb	2.2	2.0	0.8	0.9	1.3	1.3	1.4	1.4
Molybdenum[3]	U.S.$/lb	32.9	26.9	9.5	13.2	16.3	15.5	16.8	17.6
Vanadium[3]	U.S.$/lb	14.4	12.7	5.2	6.9	7.1	6.8	6.9	7.1
Iron ore[3]	U.S.$/t	186	120	73	97	150	155	185	194
Energy Products									
Crude WTI[7]	U.S.$/bbl	111	88	51	72	78	81	90	81
RBOB Gasoline[5]	U.S.$/Gal	283	214	148	190	213	211	244	211
Henry Hub Natural Gas[5]	U.S.$/MMBtu	10.1	7.7	4.1	4.2	4.7	4.1	4.5	5.8
Thermal coal (API4)[4]	U.S.$/t	116	125	64	65	87	96	123	118
Agricultural Products									
Wheat[6]	U.S.¢/BUSHEL	931	665	556	504	482	679	804	640
Soya bean meal[6]	U.S.¢/short ton	353	315	329	323	280	321	374	322
Corn[6]	U.S.¢/BUSHEL	574	480	391	356	363	492	635	448
Sugar No. 11[7]	U.S.¢/lb	12	12	14	22	20	25	32	18
Cotton No. 2[7]	U.S.¢/lb	71	56	50	64	79	109	152	74

Sources:

(1) Average price for the period as provided by the London Metal Exchange.

(2) Average price of the period as provided by London Bullion Market Association.

(3) Average price for the period as provided by Metal Bulletin Inc. For Iron ore: Steel China Iron Ore Fines cfr China port (63.5% fe).

(4) Average price for the period as provided by the Angus McCloskey's Coal Price Index Report. For Coal: Richards Bay.

(5) Average price for the period as provided by NYMEX.

(6) Average price for the period as provided by Chicago Board of Trade.

(7) Average price for the period as provided by InterContinental Exchange.

Discussion of market price trends

Metals and Minerals

Zinc

Global zinc demand surged to 12.7 million MT in 2010 after being severely depressed in 2009 by weak macroeconomic conditions and significant de-stocking as manufacturers reduced inventories in response to weak demand. Global vehicle production rebounded strongly in 2010, up by more than 20 per cent. compared to the previous year, led by China where vehicle output rose by approximately 30 per cent. during 2009, exceeding U.S. output levels. Chinese construction and infrastructure growth continued, providing support for zinc demand in that region, while construction activity in Europe and the U.S. was much more muted.

Against this background, LME zinc prices traded in the range of U.S.$2,000 to U.S.$2,500/MT for most of 2010, though dipping below U.S.$2,000/MT from May to July, reflecting a sell-off in global markets. The average LME price for 2010 was U.S.$2,160/MT compared with an average price of U.S.$1,658/MT in 2009.

Copper

Global copper demand grew rapidly during 2010 on the back of a rebound in economic growth. China continued to lead global copper demand growth as stimulus measures first introduced by the government in 2009 continued throughout the year, driving strong end-use demand for copper. Global copper mine supply failed to keep pace with demand growth during 2010, despite mine restarts encouraged by high copper prices. As a result of these drivers, copper price averaged U.S.$7,947/MT in the six months ended 31 December 2010 and closed the year at a high of U.S.$9,650/MT on a cash basis, having risen significantly from its low point in mid-2010. In the first two months of 2011, copper prices continued to rise, averaging U.S.$9,533/MT and U.S.$9,881/MT, in January and February, respectively. These increases were due to the continued shortages of supply in the market.

Lead

Global demand for lead rose to 8.8 million MT in 2010, as strong Chinese consumption continued to drive global demand growth. Lead consumption throughout the rest of Asia benefitted from China's strength, though this was partly offset by declining demand in Western Europe. Chinese consumption was fuelled by demand for both automotive batteries and stationary batteries used in backup power supply systems, telecommunication networks and renewal energy storage applications. In this context, LME lead prices traded between U.S.$2,000/MT and U.S.$2,600/MT for most of 2010, though prices dropped below this range between May and July as a result of a sell-off in global markets. The average LME price for 2010 was U.S.$2,148/MT, 24 per cent. higher than an average of U.S.$1,719/MT in 2009.

Gold

Gold price volatility remained high in 2010, with the price ranging from U.S.$1,045/oz to U.S.$1,431/oz during the year. The average market price for the year of U.S.$1,225/oz was an all-time high. The financial crisis of 2008, the subsequent slow pace of the economic recovery and government stimulus measures adopted in response by the largest developed economies, including the United States, the Eurozone and Japan, has resulted in large fiscal deficits in these jurisdictions. These deficits have triggered concerns of sovereign debt defaults, particularly in the Eurozone. Furthermore, the monetary policies put in place by the world's most prominent central banks remain very accommodative in an attempt to increase the rate of economic growth and reduce unemployment levels, with short-term U.S. interest rates at historic lows. Gold has historically played an important role as a constant measure of value. The continuing uncertain macroeconomic environment and loose monetary policies have resulted in gold performing its traditional role as a store of value. Consequently, gold has continued to be viewed as a safe haven investment, which has resulted in a strong increase in investment demand.

Aluminium

Demand for aluminium has continued to improve throughout 2010, driven by strong economic activity in Asia, South America and both Central and Eastern Europe. Demand in the U.S. and Japan stabilised in the third quarter following a run-up in consumption driven by the automotive and engineered products sectors. Underlying demand for consumer products, including packaging and beverage cans, has continued to support the rolled products segment. As a result of a more balanced market, aluminium prices continued their recovery during 2010: the average price in the six months ended 31 December 2010 was 4 per cent. higher. at U.S.$2,216/MT than an average of U.S.$2,130/MT in the six months ended 30 June 2010. The yearly average in 2010 was U.S.$2,173/MT – up 30 per cent. from U.S.$1,668/MT in 2009.

Nickel

Global demand for nickel improved during 2010 due to continuing growth in China and economic recovery in developed markets. The increasing intensity of nickel usage in China helped to mitigate the impact of the financial crisis on demand and continues to favourably impact global consumption of nickel. In developed markets, economic recovery, together with restocking by stainless steel processors and consumers during the year, also contributed to the recovery in nickel demand from the stainless steel sector. The LME cash settlement nickel was volatile during 2010 ranging between U.S.$17,200/MT and U.S.$27,900/MT to average U.S.$21,800/MT, which is 49 per cent. higher than the average in 2009. The overall positive price trend over 2010 could also be partially attributed to the year-long strike at Vale's nickel operations. Nickel prices continued to rise in early 2011, with average prices reaching

U.S.$25,621/MT and U.S.$28,412/MT in January and February, respectively, following the increase in demand caused by improving economic conditions.

Energy Products

Oil

Dated Brent crude for 2010 averaged U.S.$78.50/bbl, approximately 28 per cent. above 2009's average of U.S.$61.50/bbl. Prices traded in a relatively narrow band of U.S.$70-80/bbl for most of the year before rising in the fourth quarter. Prices exceeded U.S.$90/bbl per barrel in December 2010, the highest level since October 2008.

The price pattern was dominated by the supply and storage overhang that existed from the prior year. However, as the year progressed, this overhang diminished as global oil consumption rebounded due to the recovery in the global economy and several one-time factors. Growth was more pronounced in China. The relative stability in crude oil prices for much of the year also reflected the stability of OPEC crude oil supply and its ability to manage prices through quota fixing throughout 2010. Commercial oil inventories in the OECD remained high for much of the year, creating an environment of low European refinery margins, which caused lower refinery utilisation, before falling in the fourth quarter as the global supply-balance began to tighten.

Thermal coal

The tightening global supply-demand balance during 2010 resulted in strengthening thermal coal prices in the second half of 2010 in both the Pacific and Atlantic markets, as well as the Chinese domestic market. Spot coal prices in the Pacific market largely traded in the range of U.S.$90 to U.S.$100/MT FOB for most of the year, before strengthening in mid-November and reaching a high of U.S.$129/MT at the end of December 2010. Benchmark contract prices for the 2010 Japanese Financial Year and mid-year contracts negotiated in March and September, respectively, were both settled at U.S.$97.75/MT, while 2011 contracts negotiated in December settled at U.S.$115/MT. On a global basis, the McCloskey's Coal Price Index Report averaged U.S.$87/MT in the six months ended 30 June 2010 and U.S.$96/t in the six months ended 31 December 2010, reflecting the above-mentioned pattern of progressively tightening supply-demand balance. Prices have continued to rise, reaching U.S.$123/t and U.S.$118/t in January and February of 2011, respectively, caused by continued tightness in the market.

Agricultural Products

Prices of key agricultural products rose sharply in the six months ended 31 December 2010 as a result of continued strong demand from the PRC for oil seeds, the Middle East for grains and a number of weather-related supply problems, notably from drought in Russia in the summer of 2010. The Chicago Board of Trade wheat price increased by 36 per cent. from an average of U.S.¢482/bushel in the six months ended 30 June 2010 to an average of U.S.¢658/bushel in the six months ended 31 December 2010, while the Chicago Board of Trade soya bean price increased by 15 per cent. from an average of U.S.¢956/bushel in the six months ended 30 June 2010 to an average of U.S.¢1,103/bushel in the six months ended 31 December 2010. Early 2011 saw significant fluctuations in the price of wheat, corn and cotton due to concerns about regional weather conditions and supply in the market.

Marketing volumes sold to third parties

The following table sets out the approximate volumes of each of Glencore's main commodities that were sold to third parties through Glencore's marketing business in each of the years ended 31 December 2008, 2009 and 2010.

	Unit	2008	2009	2010
Metals and Minerals				
Zinc metal	m MT	1.0	1.3	1.7
Zinc concentrates	m MT	2.6	2.5	2.4
Copper metal	m MT	1.4	1.4	1.4
Copper concentrates	m MT	2.2	2.0	1.8
Lead metal	m MT	0.2	0.4	0.3
Lead concentrates	m MT	0.5	0.5	0.6
Gold	000 oz	447	578	589
Silver	000 oz	13,604	11,422	8,527
Alumina	m MT	6.5	5.8	6.7
Aluminium	m MT	2.4	3.2	3.9
Ferroalloys (including agency)	m MT	1.8	2.2	2.6
Nickel	000 MT	156.9	175.3	193.9
Cobalt	000 MT	25.5	23.7	17.9
Iron ore	m MT	0.9	4.8	9.3
Energy Products				
Crude oil	m MT	39.7	39.7	51.9
Oil products	m MT	68.7	69.3	66.9
Thermal coal	m MT	90.1	98.0	92.2
Metallurgical coal	m MT	5.6	7.7	8.0
Coke	m MT	1.5	0.3	0.7
Agricultural Products				
Grains	m MT	20.5	19.8	20.9
Oil/oilseeds	m MT	8.6	8.1	9.4
Cotton	m MT	0	0	0.2
Sugar	m MT	0.9	1.0	0.5

Total industrial asset production

The following table sets out the total production in each of Glencore's key commodities for which Glencore has production assets.

	Year ended 31 December[1]		
	2008 Production	2009 Production	2010 Production
		('000 MT)	
Metals and Minerals			
Zinc metal	446	437	446
Zinc concentrates	565	227	390
Copper metal	419	464	476
Copper concentrates	155	184	185
Lead metal	179	121	115
Lead concentrates	60	34	46
Gold ('000 toz)	183	238	348
Silver ('000 toz)	7,618	6,286	6,731
Aluminium	74.9	16.5	—
Alumina	1,455	1,206	1,259
Cobalt	2.2	3.8	4.5
Tin concentrates	5	4	4
Nickel	30.5	33.0	28.4
Energy Products			
Coal	22,761	23,600	19,746
Agricultural Products			
Wheat	258.5	327.4	335.3
Barley	84.8	104.7	59.6
Corn	135.1	63.8	111.7
Rapeseeds	6.1	17.1	16.7
Sunflower seeds	87.1	62.5	54.2
Soybeans	103.8	81.9	122.0

Note:

(1) Production figures represent the total production from a particular mine or operation for the entire year of operation, regardless of Glencore's percentage ownership of that mine or operation.

SECTION IV: OPERATING AND FINANCIAL REVIEW

The following discussion of Glencore's financial condition and results of operations should be read in conjunction with Section I: "Information on Glencore", Section XIII: "Information on Commodities" and Glencore's historical financial information as of and for the years ended 31 December 2008, 31 December 2009 and 31 December 2010, including the schedules and notes thereto and the reports thereon, which appear in Section VI: "Historical Financial Information". The historical financial information referred to in this discussion has been prepared in accordance with IFRS as explained in Section VI: "Historical Financial Information". The financial information considered below has been extracted from Section VI: "Historical Financial Information".

The following discussion of Glencore's results of operations and financial conditions contains forward-looking statements. Glencore's actual results could differ materially from those that it discusses in these forward-looking statements. Factors that could cause or contribute to such differences include those discussed below and elsewhere in this Prospectus, particularly in "Risk Factors" and "Information regarding forward-looking statements" in "Presentation of Information".

Overview

Glencore is a leading integrated producer and marketer of natural resources, with worldwide activities in the marketing of metals and minerals, energy products and agricultural products and the production, refinement, processing, storage and transport of these products. Glencore operates on a global scale, marketing and distributing physical commodities sourced from third party producers and own production to industrial consumers, such as those in the automotive, steel, power generation, oil and food processing industries. Glencore also provides financing, logistics and other services to producers and consumers of commodities. Glencore's long experience as a commodity merchant has allowed it to develop and build upon its expertise in the commodities which it markets and cultivate long-term relationships with a broad supplier and customer base across diverse industries and in multiple geographic regions. Glencore's marketing activities are supported by investments in industrial assets operating in Glencore's core commodities. Glencore's industrial, geographical, commodity, supplier and customer diversity, in combination with its long-term supplier and customer relationships, has enabled Glencore to operate profitably even during periods in which a particular commodity, industry, customer or geographic region may be experiencing some weakness. In addition, Glencore's marketing operations are less correlated to commodity prices than its industrial operations, which makes Glencore's earnings less volatile than those of producers of metals and mining products and energy products that do not also have marketing and logistics operations.

As a marketer, Glencore is able to differentiate itself from other production entities as, in addition to focusing on minimising costs and maximising operational efficiencies, Glencore focuses on maximising returns from the entire supply chain, taking into account its extensive and global third party supply base, its logistics, risk management and working capital financing capabilities, extensive market insight, business optionality, its extensive customer base, strong market position and penetration in more commodities and economies of scale. In contrast, this is not the business model of Glencore's mainly industrial competitors who are generally not set up to exploit the full range of value added margin and arbitrage opportunities which exist throughout the commodity supply chain.

Glencore's consolidated revenues for the years ended 31 December 2009 and 31 December 2010 were U.S.$106,364 million and U.S.$144,978 million, and its income before attribution for the years ended 31 December 2009 and 31 December 2010 were U.S.$1,729 million and U.S.$4,106 million. As at 31 December 2010, Glencore's total assets amounted to U.S.$79,787 million. Measured by revenues, Glencore believes it was one of the world's largest privately held companies during this period.

In relation to its addressable market, Glencore believes it is one of the world's largest physical suppliers of third party sourced commodities in respect of the majority of the metals and minerals which it markets, among the world's largest non-integrated physical suppliers of crude oil and oil products, as well as the world's largest participant in the supply of seaborne steam coal, including attribution of the volumes under a number of exclusive advisory and agency arrangements with, amongst others, its associate company Xstrata. Glencore believes it is among the world's leading suppliers of sugar and one of the leading exporters of grain from Europe, the CIS and Australia.

Prior to UK Admission, Glencore will complete the Restructuring whereby the holding companies of the Glencore Group will be reorganised for the purposes of listing on the London and Hong Kong Stock Exchanges.

Basis of presentation

Unless indicated otherwise, financial information in this Prospectus has been prepared in accordance with IFRS issued by the International Accounting Standards Board (the "IASB") and as adopted for use in the EU. Glencore has adopted all of the new and revised Standards and Interpretations issued by the IASB and the International Financial Reporting Interpretations Committee (the "IFRIC") and as adopted by the EU that are relevant to its operations and effective for accounting periods beginning on 1 January 2010 and that are expected to be applied for the accounting period beginning on 1 January 2011. In addition, Glencore adopted IFRS 8 "Operating Segments" which requires disclosure of certain information relating to Glencore's operating segments pending the filing of its financial statements with a securities commission for the purpose of issuing shares to the public. The adoption of these new and revised Standards and Interpretations did not have a material impact on the recognition and measurement of reported amounts.

Segmental reporting

Glencore conducts its operations through three business segments: Metals and Minerals, Energy Products and Agricultural Products. For further details on each business segment, see Section I: "Information on Glencore".

- The Metals and Minerals business segment focuses on the following commodity departments: zinc/copper/lead, alumina/aluminium and ferroalloys/nickel/cobalt/iron ore. In addition, the business segment also markets some gold, silver, tin and other by-products such as sulphuric acid. The activities of Glencore's Metals and Minerals business segment are supported by ownership interests in controlled and non-controlled industrial assets such as mining, smelting, refining and warehousing operations.
- The Energy Products business segment focuses on the following commodity departments: oil and coal/coke. The activities of Glencore's Energy Products business segment are supported by ownership interests in controlled and non-controlled coal mining and oil production operations as well as investments in strategic handling, storage and freight equipment and facilities.
- The Agricultural Products business segment focuses on the following commodities: grains (including wheat, maize and barley), oils/oilseeds, cotton and sugar. The activities of Glencore's Agricultural Products business segment are supported by investments in controlled and non-controlled storage, handling, processing and port facilities in strategic locations.

Recent developments

In January 2011, Glencore issued CHF225 million (U.S.$235 million) 3.625 per cent. bonds due April 2016, increasing the size of its CHF bond series to CHF825 million. The proceeds from this bond issue were used to redeem U.S.$300 million out of U.S.$700 million 8 per cent. perpetual notes on 6 February 2011. In February 2011, Glencore concluded a new one year committed U.S.$600 million European oil receivables borrowing base facility, now fully drawn. Recently, Glencore replaced the previous 364 day U.S.$1,375 million and the U.S.$515 million Asian focused tranche revolving credit facilities with two new 364 day revolving credit facilities for U.S.$2,925 million and U.S.$610 million, both with a one year term extension option at the borrower's discretion. In addition, Glencore extended the final maturity of U.S.$8,340 million out of the U.S.$8,370 million medium term revolver for a further year to May 2014. In aggregate, the three tranches represent an increase in committed available liquidity of U.S.$1,645 million. All of these transactions form part of Glencore's ordinary course financing activities.

Glencore has agreed with Verny to acquire additional stakes in Kazzinc. These purchases will increase its ownership from 50.7 per cent. to 93.0 per cent. for a total transaction consideration of U.S.$3.2 billion. Subject to satisfaction of certain conditions, which include receipt of applicable regulatory approvals and the occurrence of UK Admission, consideration for these purchases will be settled through the issuance of U.S.$1 billion of Ordinary Shares at the Offer Price (such issuance expected to occur at the earlier of UK Admission and satisfaction of applicable conditions precedent) and U.S.$2.2 billion in cash (to be paid in tranches between October and December 2011). The acquisition of these additional stakes is expected to be completed by the end of December 2011. The terms of the acquisition have been negotiated on an arm's length basis and the price and structuring of the consideration in respect of these purchases is based on Glencore's detailed valuation of Kazzinc. In addition, Glencore's stake in Kazzinc may be further increased to 99.4 per cent. through the exercise of a put or call option in respect of Verny Investments' remaining 6.4 per cent. interest in Kazzinc, which is conditional on amongst other things, an initial public offering of Kazzinc's gold assets. Glencore will, subject to its commercial decision based on prevailing

market conditions, use reasonable commercial endeavours to seek listing for the appropriate entity subject to such entity's eligibility for listing. See Section X: "Additional Information" for further details of these purchases and the terms of the Kazzinc SPAs. Glencore believes its increased stakes in Kazzinc will simplify the ownership structure as Kazzinc seeks to complete the expansion across its base metals mining and processing operations and its Altyntau gold division. This consolidation of Glencore's interests in Kazzinc will provide an enhanced platform for regional expansion and growth opportunities.

The acquisition, if completed, will be accounted for under IAS 27 *Consolidated and Separate Financial Statements* as an equity transaction (a transaction with owners in their capacity as owners) and on the date of completion will result in a net decrease in total equity on Glencore's consolidated statement of financial position of U.S.$2.2 billion equating to the cash component of the consideration. There will be no change to the underlying assets and liabilities of Kazzinc in Glencore's consolidated statement of financial position. Following the date of closing, an additional 42.3 percent of Kazzinc's income thereafter will be attributable to equity holders of Glencore with the remaining 7.0 per cent. being attributed to the non controlling interests in Kazzinc.

Factors affecting results of operations and financial condition of Glencore

Glencore is primarily engaged in the physical marketing and production of commodities on a worldwide basis. Glencore's results of operations are primarily affected by global macroeconomic trends, commodity prices, impact of freight rates, marketing volumes, production volumes, the financial performance of associates and other investments, production costs and efficiency and exceptional items. Each of these key factors is discussed below.

Identifying and responding to global macroeconomic trends and exploiting physical commodity arbitrage opportunities as they arise

Glencore's long-term experience in the commodities markets has allowed it to build up extensive market knowledge and insight. Glencore believes that being a major global physical marketer of commodities with leading market positions in its key commodities enables it to, among other things, maintain knowledge of local market supply and demand dynamics and respond quickly to changes in market conditions and characteristics and gain significant insight into trade flows and marketing requirements. This enables Glencore to have continuous price discovery of the commodities it produces and/or markets and rapid identification and investigation of arbitrage opportunities in respect of those commodities. In addition, Glencore's industrial assets are strategically important to, among other things, generate additional market information, including local information in the countries and regions in which the industrial assets are based.

Many of the physical commodity markets in which Glencore operates are fragmented or periodically volatile. As a result, discrepancies generally arise in respect of the prices at which the commodities can be bought or sold in different forms, geographic locations or time periods, taking into account the numerous relevant pricing factors, including freight and product quality. These pricing discrepancies can present Glencore with arbitrage opportunities whereby Glencore is able to generate profit by sourcing, transporting, blending, storing or otherwise processing the relevant commodities. Whilst the strategies used by Glencore's business segments to generate such margin vary from commodity to commodity, the main arbitrage strategies can be generally described as being geographic, product and time-related. See Section I: "Information on Glencore" for information related to these strategies. Glencore's ability to successfully identify and implement marketing strategies to take advantage of potential arbitrage opportunities throughout the physical commodity supply chain will impact its results of operations. Failure of such opportunities to present themselves or Glencore's inability to exploit such opportunities will negatively impact its results of operations.

Arbitrage opportunities are generally enhanced by global and regional price volatility and instability in the various commodities markets resulting in market disequilibrium. Glencore believes that, in periods where price components for a particular commodity or group of commodities display relative volatility and, therefore, uncertainty, the number of arbitrage opportunities in such commodities tends to increase, and, in particular, during periods of market tightness (e.g. when inventory levels are low). These market conditions offer additional opportunities to take advantage of the resulting decoupling in premium and discount structures. Conversely, in periods of reduced volatility in commodity prices, Glencore's marketing business tends to have fewer profitable arbitrage opportunities. A relatively flat marketing environment generally reduces price dislocation and, in turn, the number of arbitrage opportunities. Glencore also, from time to time, takes unhedged positions in a particular commodity (within Group limits and policies),

based on its understanding of market dynamics and expectation of future price and/or spread movements. For further discussion of Group policies regarding hedging and risk management, please see ''—Financial risk management''.

Glencore's marketing activities engage in base supply chain activities that generally provide regular generation of income. These base supply chain activities tend to have a balancing effect against the potential volatility in results as Glencore seeks to take advantage of event-driven arbitrage and/or price risk activities. In addition to the informational advantages Glencore enjoys via its global network, its significant market share and logistics capabilities in many commodities allows it to move quickly in response to arbitrage opportunities, exploiting not only the opportunities afforded by fluctuations and disequilibrium in commodity prices, but the underlying supply and demand dynamics as well.

The results of operations of Glencore's marketing activities for 2008, 2009 and 2010 were impacted by, among other things, the individual business segments' arbitrage opportunities, which are dependent, in part, on the strength of the markets, the price of the relevant commodities and the overall marketing environment (contango or backwardation) that existed at any given time during that period.

Commodity prices

Commodity prices are influenced by many factors, including the supply of and demand for commodities, speculative activities by market participants, global political and economic conditions and related industry cycles and production costs in major producing countries. While producers are clearly unable to dictate market prices directly, events such as the withdrawal of commodity production capacity (as was seen in relation to supply to the carbon and stainless steel industries in 2009 when end user demand reduced significantly) and various attempts to capture market share by individual producers could have an effect on market prices. Commodity prices may move in response to changes in production capacity in a particular market, for example, as a new asset comes online or when a large producer experiences difficult operational issues or is impacted by a natural disaster. Furthermore, the producers' actual average realised prices can be affected by contractual arrangements, production levels and hedging strategies. Prices of Glencore's main commodity products, including zinc, copper, lead, ferroalloys, nickel, cobalt, crude oil/oil products, coal, grains, sugar and edible oils can vary significantly as actual and anticipated supply and demand fluctuates. Price variations and market cycles have historically influenced the financial performance of Glencore and are expected to continue to do so in the future.

There are clearly commodity specific fundamentals and events which affect the demand and supply dynamics and pricing outlook for each individual commodity; however, the prices of most metals and energy commodities which Glencore produces and markets have generally followed macroeconomic trends and tend to be relatively closely correlated. Commodity prices were broadly strong during the first half of 2008, falling significantly in the final quarter of 2008, as the global financial crisis took hold. Prices were generally subdued in the first half of 2009 and then, following a brief period of stabilisation, started to progressively increase throughout 2010, as a result of a strengthening and stimulated global economy which drove increased demand for many commodities, particularly in Asia. During the lower points of the cycle, when market conditions were at their most difficult, production capacity was reduced in many commodities, together with significant deferral of capital expenditure. During such time, Glencore also reduced its production levels and delayed capital expenditure at certain of its industrial assets, including placing its Iscaycruz zinc mine (part of Los Quenuales) on care and maintenance during 2009 in response to the unfavourable price environment.

Prices of commodities marketed and produced in Glencore's Agricultural Products business segment similarly experienced a very difficult pricing environment from the second half of 2008 and continuing into the first half of 2009. Increases in prices in the second half of 2009 were not universally sustained into the first half of 2010, with average prices of rice, soya, corn, cotton and soya bean oil reducing in the first half of 2010. For additional detail on average market prices for the main commodities that Glencore markets, please see Section III: ''Selected Historical Financial and Other Information.''

The impacts that fluctuating commodity prices have on Glencore's business differ between its marketing activities and industrial activities.

- Marketing activities: In a market environment in which prices for a particular commodity are higher on average, the premiums/margins that Glencore generates in its physical marketing operations relating to such commodity as a result of geographical, time and quality imbalances tend to be higher. Glencore also generally benefits from fluctuating market prices, rather than long periods of stable prices, as it seeks to physically arbitrage such resulting price differentials. As prices of commodities

rise, Glencore has higher working capital financing requirements over the same quantity of commodities in question. During periods of falling commodity prices, the opposite applies in that Glencore will require less working capital financing for its marketing activities.

- Industrial activities: Higher prices will be particularly favourable to the profitability of Glencore in respect of such commodities which Glencore produces at its industrial assets or are produced by its associated companies and other investees. Similarly, low prices will negatively impact Glencore's industrial activities and could result in such activities incurring losses.

A significant downturn in the price of commodities, as was the case during the fourth quarter of 2008 and much of 2009, generally results in a decline in Glencore's profitability during such a period and could potentially result in a devaluation of inventories and impairments. See "—Exceptional Items". Although the impact of a downturn on commodity prices affects Glencore's marketing and industrial activities, the impact on its industrial activities is generally greater, as the profitability in the industrial activities is more directly exposed to price risk due to its higher level of fixed costs, while Glencore's marketing activities are ordinarily substantially hedged in respect of price risk and principally operate a margin-based model.

Impact of freight rates

Glencore's oil freight desk has a large and diversified fleet of 203 vessels as at 31 December 2010, operated under various short-term and long-term time charters and commercial management arrangements, with an average remaining fixed charge hire period of approximately three years at such date. In total, Glencore has equity interests in 41 vessels, which are delivered or currently under construction and are expected to be progressively delivered by March 2012. Glencore's freight desk contributes to the marketing results of its business segments, providing immediate access to vessels, which can represent a significant time advantage in exploiting short-term marketing opportunities. Having its own freight desk also gives Glencore greater visibility over world trade flows at a particular moment. Due to its internal requirements and the Directors' belief in Glencore's ability to achieve vessel utilisation above average industry levels, Glencore generally has a long position in fleet time chartering, thereby creating a significant exposure to fluctuations in spot freight rates. However, given the nature of the freight market and limited opportunities to hedge all freight price risk, Glencore is generally exposed to some degree of future freight price movements on its long-term time charters, not otherwise subject to hedge, re-let with a third party or to satisfy its own marketing needs.

The combination of a decline in demand for energy products towards the end of 2008 and surplus capacity in the market led to a significant decline in wet freight rates, which reached a low point in the middle of 2009. While rates recovered to some extent towards the end of 2009, there has yet to be a sustained improvement and rates in 2010 remained suppressed relative to historical levels. As a result, Glencore's freight desk experienced losses in 2008, 2009 and 2010, which adversely affected the Energy Products business segment.

Marketing volumes

The volume of commodities marketed by Glencore is a key driver of the results of operations of Glencore's marketing activities. The volume of commodities Glencore markets is dependent on its ability to source and finance the purchase of commodities and its ability to then sell these commodities to new and existing customers.

For further details on the volumes of each of Glencore's key commodities that were sold to third parties through Glencore's marketing business in each of the years ended 31 December 2008, 31 December 2009 and 31 December 2010, please see Section III: "Selected Historical Financial and Other Information."

Although volumes of commodities sold is a key factor in understanding the scale of Glencore's marketing activities and resulting market position and base earnings potential, as noted above, it is also important to assess the potential of additional value added services and arbitrage opportunities at various times and Glencore's ability to capitalise on such opportunities, on the back of its market presence. There may also be a lag effect in the relationship between earnings and sale volume; for example, by storing oil and selling forward at a higher price in a future period, Glencore is able to generate profits without increasing the volumes sold in the current period.

Production volumes

Production volume has a substantial effect on the results of operations of Glencore's industrial activities. Glencore can sell all of its production, so its industrial asset revenue generally fluctuates as a result of changes in realised prices and production volumes. Production volume is dependent on Glencore's production capacity, which is expected to increase for certain commodities, based on Glencore's expansion and development project plans. Per unit production costs are also significantly affected by changes in production volume as, prima facie, higher volumes reduce per unit production costs, given the generally high fixed cost mix in Glencore's industrial activities business. Therefore, Glencore's production levels are a key factor in determining its overall competitiveness and profitability.

For more detail on the total production of the controlled industrial assets in each of Glencore's key commodities, please see Section III: "Selected Historical Financial and Other Information".

Average commodity prices for most of the commodities Glencore produces were significantly lower during 2009 compared to 2008, resulting in lower earnings for Glencore's industrial assets. In this environment, Glencore scaled back production at certain industrial assets, resulting in lower production volumes during 2009. In addition, Glencore's production facilities are periodically stopped for planned repairs and maintenance, as well as unplanned repairs and maintenance due to power outages, flooding, equipment failures, accidents and other reasons, which temporarily reduces Glencore's production volume. See "Risk Factors—Risks relating to Glencore's industrial activities—Glencore's industrial activities involve a number of operating risks and hazards, many of which are outside Glencore's control".

Glencore has planned capital expenditures for significant expansion projects to increase the production volumes of its industrial asset portfolio, which are further described in Section I: "Information on Glencore".

Financial performance of associates and other investments

Glencore's results of operations are affected by the financial performance of its associates and other investments, with Glencore's share of income from associates and jointly controlled entities and dividends received from interests in other investments contributing directly to Glencore's income before income taxes and attribution. Glencore has investments in both listed and non-listed associates, as well as other investments primarily comprising of its 8.8 per cent. interest in UC Rusal, which has at certain times in the past been a significant contributor to Glencore's dividend income. For the years ended 31 December 2008, 31 December 2009 and 31 December 2010, Glencore's share of income from associates and jointly controlled entities and dividends received from other investments was U.S.$1,305 million, U.S.$94 million and U.S.$1,842 million, respectively. The table below sets forth, for the years ended 31 December, Xstrata's and others' contribution to Glencore's income for the year indicated. For further details on Glencore's associates and other investments, please see notes 7 and 8 to Section VI: "Historical Financial Information."

Selected Associate income and dividends	**2008**	**2009**	**2010**
	(U.S.$ million)		
	(unaudited)		
Xstrata[1]	1,147	88	1,729
Other share of income from associates and jointly controlled entities	(80)	(6)	100
Dividends from UC Rusal	232	0	0
Other dividend income	6	12	13
	1,305	94	1,842

Note:

(1) Glencore held a 35.2 per cent., 34.9 per cent. and 34.5 per cent. effective interest in Xstrata as at 31 December 2008, 2009 and 2010, respectively.

The carrying value of Glencore's interest in Xstrata on its balance sheet as at 31 December 2008, 2009 and 2010 was U.S.$10,305 million, U.S.$12,380 million and U.S.$14,616 million, respectively. Carrying value represents the initial cost of Glencore's investment in Xstrata, adjusted for Glencore's share of movements in Xstrata's net income and other equity related items less any impairment in the value of the investment. For additional information on Xstrata and its relationship with Glencore, please see Section I: "Information on Glencore."

Exceptional items

During the period under review, management has identified exceptional items that due to their financial impact nature or expected infrequency of the events giving rise to them, such as gains on sale of investments and impairments of the carrying value of assets, are separated for internal reporting and analysis of Glencore's results to provide a better understanding and comparative basis of the underlying financial performance. These items had a significant impact on Glencore's reported results from operations during the period under review and similar items could have a significant impact on Glencore's reported income in future periods. Many of these exceptional items appear in Glencore's financial statements under "Other income/(expense)—net". The most significant exceptional items identified by management were as follows:

- In 2010, Glencore recognised U.S.$99 million of exceptional expenses, including U.S.$790 million of negative mark to market adjustments associated with fixed price forward coal sales contracts that did not qualify for "own use" or cash flow hedge accounting, U.S.$225 million of Prodeco call option expenses (see below) offset by U.S.$674 million of impairment reversals following the rebound in market conditions and underlying valuation assumptions associated with Glencore's investment in Xstrata and U.S.$462 million related to the revaluation of the initial 40 per cent. interest in Vasilkovskoje Gold immediately prior to the acquisition of the remaining 60 per cent. interest.
- In March 2009, Xstrata acquired Glencore's Colombian Coal Group (Prodeco) for U.S.$2 billion, and concurrently granted Glencore an option to repurchase Prodeco within 12 months for U.S.$2.25 billion plus profits accrued during the option period and the net balance of any cash invested. The sale of Prodeco to Xstrata with the option for Glencore to repurchase at a specified price was undertaken in connection with Xstrata's 2009 rights issue. The transaction allowed Glencore to participate in Xstrata's rights issue by paying with assets rather than cash, thus ensuring the maintenance of Glencore's investment grade credit rating. Glencore's directors considered this transaction to be in the interests of Glencore and in line with its stated strategies and Xstrata's reasoning for the transaction is fully documented in its shareholder circular published in connection with shareholder approval required for such transaction. Since Glencore held a fixed price repurchase option over Prodeco, the conditions for de-recognition or disposal of Prodeco were not met under IFRS and, as a consequence, Prodeco's operations continued to be reflected in the Consolidated Financial Statements, while the proceeds were deferred and recognised as a liability. In March 2010, Glencore exercised its option to repurchase Prodeco from Xstrata. In the year ended 31 December 2010, U.S.$225 million (2009: U.S.$303 million) of option and related expense has been recognised under this arrangement.
- In 2009, Glencore recognised U.S.$1,091 million of exceptional expenses, including U.S.$736 million and U.S.$25 million related to Glencore's share of asset impairment charges booked directly by Xstrata and Century Aluminum, respectively, and U.S.$303 million related to the Prodeco call option as described in the prior paragraph.
- The rapid and severe impacts arising from the global financial crisis in the latter part of 2008 resulted in a substantial fall in commodity prices, which, together with the increased uncertainty in financial and credit markets, led Glencore to defer various projects and curtail or shut some production output. This backdrop led to impairments being recorded against the carrying value of certain assets and investments. Glencore recognised U.S.$3,756 million of exceptional expenses in the year ended 31 December 2008, including inventory net realisable value adjustments of U.S.$435 million and impairment charges of U.S.$2,763 million. Of this amount, U.S.$2,161 million was attributable to impairments related to Glencore's interest in Xstrata, Century Aluminum and UC Rusal, with the balance related to various other cumulative impairments arising primarily from decisions taken to curtail and/or suspend various mining or expansion activities.

For more details on the impact of exceptional items on Glencore's financial results, please see Part III: "Selected Historical Financial and Other Information" and Section VI: "Historical Financial Information".

Please see the financial table in Section III: "Selected Historical Financial and Other Information" setting forth for the three years ended 31 December 2010 certain selected line items extracted without material adjustment from the historical financial information contained in Section VI: "Historical Financial Information", certain items which Glencore considers exceptional (as described therein) and the aggregate effect on such historical financial information of such exceptional items.

Production costs and efficiency

As commodity prices themselves are outside of Glencore's control, the competitiveness and sustainable long-term profitability of its industrial asset portfolio depends significantly on its ability to closely manage costs and maintain a broad spectrum of low-cost, efficient operations. Costs associated with the operation of Glencore's industrial assets can be broadly categorised into labour costs and other on-site expenses, including power and equipment costs. Production costs are heavily influenced by the extent of ongoing development required, ore grades, mine planning, processing technology, logistics, energy and supply costs and the impact of exchange rate fluctuations on costs of operations. All of Glencore's industrial assets are, to varying degrees, affected by increases in costs for labour and fuel. Unit production costs are also significantly affected by production volumes and therefore production levels are frequently a key factor in determining the overall cost competitiveness of Glencore's industrial activities.

Glencore's industrial assets experienced higher mining and processing costs during the third quarter of 2008, particularly in connection with labour and energy, which continued to rise throughout 2008. As production costs continued to increase and commodity prices collapsed in the fourth quarter of 2008, Glencore's industrial assets incurred a loss, post-exceptional items, for this quarter. In response, management initiated a number of cost-saving measures, including putting some assets into care and maintenance, curtailing production at others and seeking efficiencies and synergy opportunities with nearby operations. These measures led to reduced production costs in 2009 compared to 2008.

Description of key income statement line items

Revenues

Glencore generates revenue from the sale of physical commodities and marketing advisory and related services. In most instances, sales revenue is recognised when title to the product passes to the customer, which could be delivery into the vessel on which it is shipped, a destination port or the customer's premises. As commodity prices are often volatile, Glencore believes that overall revenues are neither a reliable nor a relevant indicator of the performance of Glencore or of the individual business segments. Instead, Glencore believes that Adjusted EBIT/EBITDA (revenue less costs of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the statement of income plus, in the case of Adjusted EBITDA, depreciation and amortisation) are key measures to evaluate the operating performance of Glencore and, to a lesser extent, Adjusted EBIT/EBITDA margin percentage in respect of only Glencore's industrial activities.

For certain commodities, the sales price is determined on a provisional basis at the date of sale, as the final selling price is subject to movements in market prices up to the date of final pricing, normally ranging from 30 to 180 days after initial booking. Revenue on provisionally priced sales is recognised based on the estimated fair value of the total consideration receivable. The revenue adjustment mechanism embedded within provisionally priced sales arrangements has the character of a commodity derivative. Accordingly, the fair value of the final sales price adjustment is re-estimated continuously and changes in fair value are recognised as an adjustment to revenue. In all cases, fair value is estimated by reference to forward market prices.

Glencore records revenues in its physical commodity marketing business on a gross basis, rather than on the basis of the net margin or premiums received. Revenue earned from marketing advisory and related services represented less than 0.1 per cent. of total revenues in 2008, 2009 and 2010, respectively and the remaining 99.9 per cent. of the Group's revenue in each period was attributable to purchase and off take agreements.

Cost of goods sold

Cost of goods sold primarily includes the following:

- cost of marketing inventories sold and related distribution and storage costs;
- cost of extracting, refining and processing products related to the consolidated industrial assets, including personnel costs and depreciation and amortisation of property, plant and equipment and reserves;
- unrealised gains and losses from changes in the fair value of marketing inventories;
- unrealised gains and losses from changes in the fair value of derivatives held to hedge movements in commodity prices; and
- other operating expenses.

Cost of goods sold also includes, as required, write-downs of inventories where such inventories are carried at the lower of cost or net realisable value.

Selling and administrative expenses

Selling and administrative expenses represent costs that are primarily semi-fixed in nature and attributable to Glencore's marketing activities, with the exception of the variable bonus pool. Payroll expenditure is the largest component of this line item, with the variable bonus pool constituting a significant part of the payroll expenditure. The variable bonus pool is correlated with the profitability of Glencore's marketing operations and certain of its industrial activities comprising 10 per cent. of profits before tax from Glencore's marketing activities and 10 per cent. of profits after tax from certain of its industrial activities. Following the Restructuring, non cash expenses associated with share awards under the Glencore Performance Share Plan and Glencore Deferred Bonus Plan will also be included in Selling and administrative expenses. PSP Awards and Bonus Awards may be satisfied using new issued shares, treasury shares or shares purchased in the market. However, the number of shares which may be issued, or committed to be issued, in any 10 year period will not exceed (i) 10 per cent. of the Company's issued ordinary share capital, in respect of any employee share plans operated by the Company; and (ii) 5 per cent. of the Company's issued ordinary share capital, in respect of discretionary employee share plans adopted by the Company. As at the date of Admission, the Company will only have discretionary employee share plans in existence. Shares issued, or committed to be issued, before Admission will not be counted for either of these limits.

Share of income from associates and jointly controlled entities

Share of income from associates and jointly controlled entities represents income from associates and jointly controlled entities in which Glencore exercises significant influence or joint control that are accounted for using the equity method. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control over those policies. Significant influence is presumed if Glencore holds between 20 per cent. and 50 per cent. of the voting rights, unless evidence exists to the contrary. Joint control is the contractually agreed sharing of control over an economic entity where strategic and operating decisions require unanimous decision making.

Equity accounting involves Glencore recording its share of the entity's net income and equity. Glencore's interest is initially recorded at cost and is subsequently adjusted for Glencore's share of changes in net assets of the entity less any impairment in the value of individual investments.

Gain/(loss) on sale of investments—net

Gain/(loss) on sale of investments—net comprises the net gain/loss on the sale of subsidiaries and other investments.

Other income/(expense)—net

Other income/(expenses)—net includes impairments, gains/losses on movements in fair value on interests in investments classified as held for trading, foreign exchange gains/losses, and gains/losses on disposals of property, plant and equipment and other non-operational related income or expenses.

Dividend income

Dividend income reflects distributions of earnings in respect of Glencore's stakes in non-controlled and non-equity accounted entities. Dividend income is recognised when a right to receive a payment has been established, it is probable that the economic benefits will flow to Glencore and the amount of income can be measured reliably. Historically, dividends from UC Rusal have been the largest contributor to dividend income.

Interest income

Interest income reflects interest received from cash deposits and loans extended by Glencore. Interest income is recognised when a right to receive a payment has been established, it is probable that the economic benefits will flow to Glencore and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the applicable effective interest rate.

Interest expense

Interest expense comprises interest incurred on Glencore's fixed- and floating-rate borrowings.

Income tax expense

Income tax expense consists of current and deferred income taxes. Current taxes represent income taxes expected to be payable based on enacted or substantively enacted tax rates at the balance sheet date and expected current taxable income and any adjustment to tax payable in respect of previous years. Deferred taxes are recognised for temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax base is used in the computation of taxable profit, using enacted or substantively enacted income tax rates. For further detail on deferred tax accounting, see Section VI: "Historical Financial Information".

The difference between Glencore's statutory tax rate and the Group's effective tax rate results primarily from the location of the Group's operations in differing tax jurisdictions relative to Glencore's tax jurisdiction, Switzerland. The Group's effective tax rate excludes income from associates and dividend income, which are recorded post tax. Intergroup transactions are conducted on an arm's length basis and incorporate all relevant terms and conditions such as reference price and applicable adjustments for quality, logistical and related services consistent with similar transactions conducted with third parties. While the Group, in the past, has been reviewed regarding compliance with tax and transfer pricing regulations, any resulting disputes were satisfactorily resolved with no material adverse impact on the Group and it currently has no material outstanding tax or transfer pricing disputes. There have been certain matters (e.g. overestimated production costs and transfer pricing issues) raised in relation to the amount of tax payable by Mopani (73.1 per cent. owned by Glencore) in a draft provisional report prepared by advisers for the Zambian Revenue Authority. Mopani is confident that the amount of tax that it has paid has been correctly calculated and discussions continue with the Zambian Revenue Authority and all other interested parties to clarify and resolve these matters whether or not any assessments are issued. However, even if these matters are not resolved satisfactorily as Mopani expects, the Directors believe this would not have a material adverse impact on the Glencore Group.

Attribution to profit participation shareholders

Prior to the Restructuring, Glencore had issued to employees Glencore non-voting profit participation certificates ("PPCs") with no nominal value, enabling the employees to participate in a portion of the attributable income accumulated during the period that such employees held the PPCs. The PPCs attribute Glencore's net income pro rata based on the 150,000 shares issued. As described in note 14 to Section VI: "Historical Financial Information", on cessation of employment the accumulated amounts attributed to an Ordinary PPC holder are reclassified into non-current borrowings, as Ordinary profit participation certificates and paid in instalments over a period of five years. Following the Restructuring, all outstanding PPCs including profit entitlements accumulated thereunder will have been converted to Ordinary Shares and attribution will no longer be made to employee shareholders through the PPCs. Where the employment of a PPC holder has ceased prior to the Restructuring, the relevant Ordinary profit participation certificates will have been reclassified in this way and will not participate in the Restructuring. The borrowings into which they have been reclassified will remain payable in accordance with this five-year payment schedule.

Results of operations

Adjusted EBIT

Adjusted EBIT is the net result of revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the consolidated statement of income. Adjusted EBIT is used by management as the key measure to assess the performance of the business segments as it reflects the net margin earned by the marketing and industrial activities of the business segment. Although Adjusted EBIT is not typically a measure of operating income, operating performance or liquidity under IFRS, the Directors have presented Adjusted EBIT in this Prospectus because they believe Adjusted EBIT is used by some investors to determine a company's ability to service indebtedness and fund ongoing capital expenditure and dividends. Adjusted EBIT should not, however, be considered in isolation or as a substitute for income from operations as determined in accordance with IFRS, or for cash flows from operating activities as determined in

accordance with IFRS, or as an indicator of operating performance. The following table sets forth a reconciliation of Adjusted EBIT to income for the year for the periods indicated:

	2008	2009	2010
		(U.S.$ million)	
Revenue	152,236	106,364	144,978
Cost of goods sold	(147,565)	(103,133)	(140,467)
Selling and administrative expenses	(850)	(839)	(1,063)
Share of income from associates and jointly controlled entities	1,067	82	1,829
Dividend income	238	12	13
Adjusted EBIT	5,126	2,486	5,290
Interest expense—net	(837)	(587)	(936)
(Loss)/gain on sale of investments—net	7	33	(6)
Other (expense)/income—net	(2,960)	35	(8)
Income before income taxes and attribution	1,336	1,967	4,340
Income tax expense	(268)	(238)	(234)
Income before attribution	**1,068**	**1,729**	**4,106**
Attribution to profit participation shareholders	(677)	(650)	(2,460)
Income for the year	**391**	**1,079**	**1,646**

Adjusted EBIT for the year ended 31 December 2010 was U.S.$5,290 million, a 113 per cent. increase from U.S.$2,486 million, including exceptional items, in the year ended 31 December 2009. This increase was primarily due to the stronger contributions from both our industrial activities and our marketing activities. Contributions from our industrial asset activities were up 219 per cent. to U.S.$2,953 million over 2009. Average prices for our key metals produced (in particular, copper, zinc and nickel) were approximately 30 per cent. to 45 per cent. higher over the year. The contribution from our marketing activities was up approximately 50 per cent. to U.S.$2,337 million over 2009.

Adjusted EBIT for the Metals and Minerals business segment was U.S.$2,561 million for the year ended 31 December 2010, a 165 per cent. increase from U.S.$966 million, including exceptional items, for the year ended 31 December 2009. The contribution of the sizeable industrial asset portfolio of this segment benefited from stronger metals prices. Improving market sentiment and conditions in the important automotive and construction industries resulted in substantially increased volumes and corresponding income generated within the ferroalloys, nickel and aluminium commodity groups' marketing activities compared to the challenging conditions of 2009.

Adjusted EBIT for the Energy Products business segment was U.S.$685 million for the year ended 31 December 2010, a 49 per cent. decrease from U.S.$1,358 million, including exceptional items, for the year ended 31 December 2009. This decrease was primarily due to the relatively stable oil price environment and a poor wet freight market which prevailed for most of the year. In addition, the contribution of coal industrial assets was affected by certain infrequent events, most notably a lengthy strike at one of the coal mines in Colombia and extreme wet weather conditions that affected operations at both our Colombian and South African operations. These impacts on 2010 earnings within the energy products segment are expected to recede in 2011 with a return to more "normal" market and operating conditions. The contribution from industrial activities was further impacted by U.S.$40 million of oil exploration expenses (2009: U.S.$26 million), incurred as part of the ongoing build-up of the promising West African E&P portfolio, which was not able to be capitalised. Production and earnings from the portfolio are expected from the first quarter of 2012.

Adjusted EBIT for the Agricultural Products business segment was U.S.$717 million for the year ended 31 December 2010, a 108 per cent. increase from U.S.$345 million, including exceptional items, for the year ended 31 December 2009. This increase was primarily due to tight and dislocated market conditions. These resulted primarily from severe weather conditions which severely affected supply from the traditionally strong export markets such as Russia, Ukraine and Australia.

Corporate primarily relates to Glencore's equity accounted interest in Xstrata and the variable pool bonus accrual, the net result of which was up U.S.$1,510 million to U.S.$1,327 million compared to 2009. This was mainly owing to an increase in Xstrata's earnings, which reflected higher commodity prices.

Adjusted EBIT for the year ended 31 December 2009, including exceptional items, was U.S.$2,486 million, a 51 per cent. decrease from U.S.$5,126 million in the year ended 31 December 2008, due to lower

contributions from each business segment, owing to the weak prevailing global economic backdrop, particularly during the first half of 2009. This decrease was primarily due to lower contributions from the Energy Products business segment, which benefited from strong market conditions during most of 2008 and significantly lower contributions from investments in associates and other investments, which, in addition to lower core earnings in 2009, recorded sizeable impairment charges. Glencore's share of such impairments amounted to U.S.$736 million.

Adjusted EBIT from the Metals and Minerals business segment, including exceptional items, was U.S.$966 million for the year ended 31 December 2009, a 24 per cent. decrease from U.S.$1,273 million for the year ended 31 December 2008. This decrease was due to a U.S.$253 million reduction in marketing activities' contribution and lower earnings from industrial activities (including the significantly lower contributions from investments in associates and other investments), each as a result of lower overall market sentiment and demand brought on by the global financial crisis. In particular, metals (aluminium, chrome, nickel, etc.) supplying the automotive, construction and steel industries, amid severe production cutbacks, generally suffered lower sales volumes and prices in the first half of 2009. Customer performance issues on certain coal related contracts also had an adverse impact on the financial results of that department during 2009.

Adjusted EBIT for the Energy Products business segment, including exceptional items, was U.S.$1,358 million for the year ended 31 December 2009, a 36 per cent. decrease from U.S.$2,131 million for the year ended 31 December 2008. This decrease was due to a U.S.$664 million (41 per cent.) lower contribution from marketing activities and a U.S.$109 million (21 per cent.) lower contribution from industrial activities. The marketing activities were supported by volatility and contango structures that were particularly strong during most of 2008 and only in the earlier part of 2009, where after volatility and arbitrage opportunities substantially reduced. Glencore also suffered significant loss of profits during 2009, mainly in its coal business, due to a number of instances of contract non-performance by various counterparties. While these instances of non-performance impacted the results of the coal business during the period, each of the relevant contracts was subsequently renegotiated on satisfactory terms and Glencore continues to do business with each of the counterparties. The oil marketing results were further hampered in 2009 by the poor performance of its freight division, which, due to its generally long overall position in time charters, suffered in an environment of sharply lower spot freight rates. The decrease in industrial asset contribution was due primarily to the impact of lower coal prices on the earnings of Prodeco and Shanduka.

Adjusted EBIT for the Agricultural Products business segment, including exceptional items, was U.S.$345 million for the year ended 31 December 2009, a 49 per cent. decrease from U.S.$678 million for the year ended 31 December 2008. This decrease was due to a U.S.$275 million (47 per cent.) lower contribution from marketing activities and a U.S.$58 million (59 per cent.) lower contribution from industrial activities. In 2009, grain volatility and prices were substantially lower than 2008, which reduced the number of arbitrage opportunities. In addition, lower processing volumes were not fully offset by cost deductions due to the semi-fixed nature of the cost base for Glencore's processing operations, which has adversely impacted the segment's industrial results.

Corporate primarily relates to Glencore's equity accounted interest in Xstrata and the variable pool bonus accrual, the net result of which was down U.S.$1,227 million from U.S.$1,044 million in 2008 to U.S.$(183) million in 2009, primarily due to lower average commodity prices during the period and recognition of Glencore's share of impairment charges booked directly by Xstrata.

Year ended 31 December 2010 compared with year ended 31 December 2009

Revenue

Glencore's revenue for the year ended 31 December 2010 was U.S.$144,978 million, a 36 per cent. increase from revenues of U.S.$106,364 million in the year ended 31 December 2009. This increase was primarily due to significantly higher average commodity prices for most of the commodities Glencore marketed during 2010 compared to 2009. Higher year-on-year average prices were most notable in nickel (49 per cent.), copper (46 per cent.), thermal coal (42 per cent.), aluminium (30 per cent.), zinc (30 per cent.) and crude oil (29 per cent.), contributing to an overall increase in revenues of U.S.$38,614 million. In addition, Glencore saw increases in the volumes of several of its key commodities including crude oil (31 per cent.) and alumina (15 per cent.). Given the relatively high revenue proportion of Glencore's oil business, the increase in average oil prices was the largest driver of the total revenue increase in 2010.

Cost of goods sold

Cost of goods sold for the year ended 31 December 2010 was U.S.$140,467 million, a 36 per cent. increase from U.S.$103,133 million in the year ended 31 December 2009. This increase was primarily due to the higher commodity prices noted above and the resulting impact on the purchases of the respective commodities.

Selling and administrative expenses

Selling and administrative expenses for the year ended 31 December 2010 were U.S.$1,063 million, a 27 per cent. increase from U.S.$839 million in the year ended 31 December 2009. This increase was primarily due to higher variable payroll costs, consistent with the increased earnings in 2010.

Share of income from associates and jointly controlled entities

Share of income from associates for the year ended 31 December 2010 was U.S.$1,829 million, up from U.S.$82 million in the year ended 31 December 2009. The 2009 balance was negatively impacted by impairment charges recorded by the underlying associates, Glencore's share being U.S.$761 million. Adjusting for these exceptional items, there was still a greater than twofold increase over the prior year mainly due to higher earnings at Xstrata, which in turn reflected improved commodity prices.

Gain/(loss) on sale of investments—net

Loss on sale of investments for the year ended 31 December 2010 was U.S.$6 million, compared to a gain of U.S.$33 million in the year ended 31 December 2009. The loss in 2010 was due to the disposal of certain non-core investments.

Other income/(expense)—net

Net other expense for the year ended 31 December 2010 was U.S.$8 million, compared to a net other income of U.S.$35 million in the year ended 31 December 2009. The net amount primarily comprised U.S.$790 million negative mark to market adjustments related to certain fixed price forward coal sales contracts of Prodeco's future production. These forward contracts did not qualify for "own use" or cash flow hedge accounting. The net amount for 2010 also included U.S.$225 million of Prodeco call option expenses, offset by U.S.$674 million of impairment reversals associated with Glencore's investment in Xstrata following the rebound in market conditions and underlying valuation assumptions. It also included U.S.$462 million revaluation adjustment on the initial 40 per cent. interest in Vasilkovskoje Gold immediately prior to the acquisition of the remaining 60 per cent. interest in February 2010.

Dividend income

Dividend income for the year ended 31 December 2010 was U.S.$13 million, an 8 per cent. increase from U.S.$12 million in the year ended 31 December 2009.

Interest Income

Interest income for the year ended 31 December 2010 was U.S.$281 million, a 5 per cent. increase from U.S.$267 million in the year ended 31 December 2009. This increase was primarily due to the impact on the interest received from higher average cash balances on hand and various loans extended, including to companies within the RussNeft Group.

Interest expense

Interest expense for the year ended 31 December 2010 was U.S.$1,217 million, a 43 per cent. increase from U.S.$854 million in the year ended 31 December 2009, or up 38 per cent., pre-exceptional items, taking into account U.S.$39 million of capitalised borrowing costs written off in 2010. This increase was primarily due to higher average debt levels and, to a lesser extent, the incremental cost impact of a higher long-term, fixed-rate funding mix.

Excluding exceptional items, interest expense on floating-rate debt increased by U.S.$93 million to U.S.$551 million from U.S.$458 million in 2009. Floating-rate debt is predominantly used to fund fast turning and liquid working capital, the funding cost of which is taken into account in transactional pricing and terms and accordingly "recovered" in adjusted marketing EBIT.

Interest expense on fixed-rate funding was U.S.$627 million in 2010, an increase of U.S.$231 million over 2009. The net increase is due to the Convertible, Euro and Swiss Franc/Perpetual bond issuances in December 2009, March 2010 and October 2010, respectively.

Income before income taxes and attribution

Income before income taxes and attribution for the year ended 31 December 2010 was U.S.$4,340 million, a 121 per cent. increase from U.S.$1,967 million for the year ended 31 December 2009. This increase was primarily due to increased contributions from industrial asset activities which increased more than threefold following price increases in the respective commodities along with increased contributions from the marketing activities that increased 50 per cent. compared to 2009 following improvements in global demand and market sentiment.

Income tax expense

Income tax expense for the year ended 31 December 2010 was U.S.$234 million, largely in line with U.S.$238 million incurred over the year ended 31 December 2009. The effective tax rate, excluding share of income from associates which is recorded post-tax, was 9.3 per cent. compared to 12.6 per cent. for 2009. The lower rate is due to the recognition of unrecognised tax losses following a review of business plans, primarily at Katanga, partly offset by the recognition of additional deferred tax expense in relation to the corporate tax rate increase in Kazakhstan from 15 per cent. to 20 per cent.

Attribution to profit participation shareholders

Attribution to profit participation shareholders for the year ended 31 December 2010 was U.S.$2,460 million compared to U.S.$650 million, an increase of 278 per cent. This increase was consistent with the increased allocatable income in 2010.

Income for the year

Income for the year ended 31 December 2010 was U.S.$1,646 million, a 53 per cent. increase from U.S.$1,079 million for the year ended 31 December 2009. This increase was primarily due to a recovery in worldwide commodity prices and market sentiment over 2010 which led to improved conditions from most of our business segments as well as our share of income from associates.

Year ended 31 December 2009 compared with year ended 31 December 2008

Revenue

Glencore's revenue for the year ended 31 December 2009 was U.S.$106,364 million, a 30 per cent. decrease from revenues of U.S.$152,236 million in the year ended 31 December 2008. This decrease was primarily due to significantly lower average commodity prices for most of the commodities Glencore marketed during 2009 compared to 2008. While worldwide commodity prices generally saw a recovery in the second half of 2009, the very weak start to the year lead to an overall decline in the average price of commodities from 2008 to 2009. Lower year-on-year average prices were most notable in thermal coal (approximately 42 per cent.), oil (approximately 36 per cent.), aluminium (approximately 35 per cent.), wheat (approximately 33 per cent.), nickel (approximately 31 per cent.) and copper (approximately 26 per cent.), contributing to an overall decrease in revenues of U.S.$45,872 million. Commodity volumes remained largely stagnant over the period and, as a result, the decrease in the average price of oil, the largest contributor to revenue, and any associated movements, over 2009 were the primary drivers of the decrease in revenue compared to 2008.

Cost of goods sold

Cost of goods sold for the year ended 31 December 2009 was U.S.$103,133 million, a 30 per cent. decrease from U.S.$147,565 million in the year ended 31 December 2008. This decrease was primarily due to the lower commodity prices noted above and the resulting impact on the purchases of the respective commodities. To a much lesser extent, the decrease was also attributable to lower production costs at Glencore's industrial activities resulting from cost cutting measures across the group, including scaling back production at certain industrial assets.

Selling and administrative expenses

Selling and administrative expenses for the year ended 31 December 2009 were U.S.$839 million, a 1 per cent. decrease from U.S.$850 million in the year ended 31 December 2008. The variable bonus pool accrual, one of the significant components of selling and administrative expenses, decreased by U.S.$27 million for the year ended 31 December 2009 from 2008.

Share of income from associates and jointly controlled entities

Share of income from associates for the year ended 31 December 2009 was U.S.$82 million, a 92 per cent. decrease from U.S.$1,067 million in the year ended 31 December 2008. This decrease was primarily due to lower earnings at Xstrata and Century Aluminum which were primarily driven by a fall in commodity prices, volumes of commodities sold and impairment charges recorded by these entities.

Gain/(loss) on sale of investments—net

Gain on sale of investments for the year ended 31 December 2009 was U.S.$33 million and U.S.$7 million in the year ended 31 December 2008. The gain in 2009 related to the disposal of the East Tennessee Zinc operations (U.S.$97 million), offset by a dilution loss, following Xstrata's 2009 capital raising, which saw Glencore's effective ownership in Xstrata reduce from 35.2 per cent. to 34.9 per cent.

Other income/(expense)—net

Net other income for the year ended 31 December 2009 was U.S.$35 million, compared to net other expense of U.S.$2,960 million in the year ended 31 December 2008. The net other expense in 2008 related primarily to impairments booked against the carrying value of assets and investments. Specifically, U.S.$1.7 billion of the impairment expense was booked against the Xstrata and Century Aluminum carrying values, with the remaining balance relating to the various other cumulative impairments arising primarily from decisions taken to curtail and/or suspend various mining or expansion activities.

The net other income in 2009 comprised primarily a net increase in the fair value of other investments accounted for at fair value offset by U.S.$303 million of expenses incurred in relation to the Prodeco call option arrangement. In March 2009, Xstrata acquired Glencore's Columbian Coal Group (Prodeco) for U.S.$2 billion and concurrently granted Glencore an option to repurchase Prodeco within 12 months for U.S.$2.25 billion plus profits accrued during the option period and the net balance of any cash invested. Since Glencore held a fixed repurchase option over Prodeco, the conditions for de-recognition or disposal of Prodeco were not met under IFRS and, as a consequence, Prodeco's operations continued to be reflected in the consolidated financial statements, while the proceeds were deferred and recognised as a liability. As at 31 December 2009, U.S.$303 million of option and related expense had been accrued under this arrangement.

Dividend income

Dividend income for the year ended 31 December 2009 was U.S.$12 million, a 94 per cent. decrease from U.S.$238 million in the year ended 31 December 2008. This decrease was primarily due to the cessation of dividends from UC Rusal, which had previously been the primary contributor to dividend income.

Interest income

Interest income for the year ended 31 December 2009 was U.S.$267 million, a 10 per cent. decrease from U.S.$298 million in the year ended 31 December 2008. This decrease was primarily due to lower average short-term rates noted below and their impact on the interest received on cash and various loans extended.

Interest expense

Interest expense for the year ended 31 December 2009 was U.S.$854 million, a 25 per cent. decrease from U.S.$1,135 million in the year ended 31 December 2008. This decrease was primarily due to lower average short term U.S. dollar interest rates over 2009 compared to 2008 as prime lending rates were cut in response to the global financial crisis. One-month U.S. dollar LIBOR averaged 0.33 per cent. during 2009, compared to 2.68 per cent. in 2008.

The lower base interest rate, partially offset by a general increase in corporate credit spreads, resulted in a net decrease in interest expense on floating rate debt of U.S.$307 million to U.S.$458 million in 2009 from

U.S.$765 in 2008. Floating-rate debt is predominantly used to fund relatively fast turning and liquid working capital, the funding cost of which is generally taken into account in transactional pricing and terms and accordingly "recovered" in adjusted marketing EBIT.

Interest expense on fixed rate funding was U.S.$396 million in 2009, an increase of U.S.$26 million over 2008. The net increase was primarily due to the full year impact of the Eurobonds issued during 2008, partly offset by interest "savings" on bonds repurchased during the year.

Income before income taxes and attribution

Income before income taxes and attribution for the year ended 31 December 2009 was U.S.$1,967 million, a 47 per cent. increase from U.S.$1,336 million for the year ended 31 December 2008. This increase was primarily due to the presence of "Other income" for 2009 as opposed to the large "Other expense" in 2008.

Income tax expense

Income tax expense for the year ended 31 December 2009 was U.S.$238 million, an 11 per cent. decrease from U.S.$268 million in the year ended 31 December 2008. This decrease was primarily due to the relative contribution of Glencore's foreign operations to its effective tax rate. The effective tax rate was affected by the significant impairments taken in 2008 that did not carry any tax benefits.

Attribution to profit participation shareholders

Attribution to profit participation shareholders for the year ended 31 December 2009 was U.S.$650 million compared to U.S.$677 million in 2008, a decrease of 4 per cent. This decrease was primarily due to a net lower allocatable income over the period.

Income for the year

Income for the year ended 31 December 2009 was U.S.$1,079 million, a 176 per cent. increase from U.S.$391 million for the year ended 31 December 2008. This increase was primarily due to the adverse impact on income in 2008 caused by the exceptional items recognised in relation to Glencore's interests in Xstrata and Century Aluminum. Please see "Other income/(expense)—net" above. Glencore also benefited from a general recovery in worldwide commodity prices over the second half of 2009 as well as the realisation of cost savings from the cost cutting measures implemented by management during the global financial crisis.

Liquidity and capital resources

Overview

Glencore's businesses are capital intensive (capital expenditure for industrial activities and working capital for marketing activities). To date, Glencore has funded its operations through borrowings and equity growth via retention of profits. Glencore's funding requirements are generally correlated with movements in commodity prices and the extent of business opportunities. Increasing commodity prices primarily lead to increased funding requirements for Glencore's marketing activities, but may also lead to increased cash flow from its industrial activities along with acquisitions and/or capital expenditures in Glencore's industrial activities as Glencore looks to increase production in a higher commodity price environment. In a falling commodity price environment, Glencore will generally generate less cash flow from its industrial activities but will also require lower working capital funding in its marketing activities. In these circumstances, it may choose to also defer discretionary capital expenditure and shut or curtail production of certain assets.

Cash flows

The following table summarises Glencore's cash flows for the periods indicated:

	Year ended 31 December		
	2008	2009	2010
	(U.S.$ million)		
Cash generated/in operating activities before working capital changes	4,587	3,095	4,234
Total working capital changes	2,560	(5,279)	(2,998)
Net income tax and interest paid	(1,187)	(826)	(1,125)
Net cash generated/(used) by operating activities after working capital changes, net interest and income tax	5,960	(3,010)	111
Net cash used by investing activities	(2,950)	(1,164)	(4,755)
Net cash generated/(used) by financing activities	(2,842)	4,208	5,247
Net increase in cash and cash equivalents	168	34	603
Cash and cash equivalents at beginning of period	658	826	860
Cash and cash equivalents at end of period	826	860	1,463

Net cash generated by operating activities before working capital changes

Net cash generated by operating activities before working capital changes was U.S.$4,234 million in 2010, U.S.$3,095 million in 2009 and U.S.$4,587 million in 2008.

Total working capital changes

Amounts invested in working capital were U.S.$(2,998) million in 2010 compared to an investment of U.S.$(5,279) million in 2009 and a release of U.S.$2,560 million in 2008. Working capital requirements in 2010 included the payment of U.S.$303 million in relation to the exercise of the Prodeco call option. The remaining investment was primarily due to movements in commodity prices affecting the carrying value of inventory, trade receivables and margin calls with copper, zinc, oil and wheat prices increasing by 21 per cent., 13 per cent., 14 per cent., and 18 per cent., respectively, over the final quarter of 2010. The primary drivers of the recent working capital investment by Glencore, namely higher prices, are generally beneficial for Glencore's trends in future profit and debt coverage, most clearly identifiable in the industrial asset portfolio. In a flat or declining price environment, such as in 2008, the cash margining component of working capital will reduce as inventory is sold and any corresponding hedges closed out.

Net cash generated/(used) by operating activities after working capital changes, net interest and income tax

Net cash generated/(used) by operating activities after working capital changes, net interest income and income tax was U.S.$111 million in 2010, U.S.$(3,010) million in 2009 and U.S.$5,960 million in 2008.

Net cash (used) by investing activities

Net cash (used) by investing activities was U.S.$(4,755) million, U.S.$(1,164) million and U.S.$(2,950) million in 2010, 2009 and 2008, respectively. Net cash flows used by investing activities relate to capital expenditures at Glencore's industrial activities, as well as the acquisition and sale of investments and the movement in long-term loans. Capital expenditures in 2008, 2009 and 2010 mainly included coal expansion activities at Prodeco, building a new copper smelter at Kazzinc, the procurement of various new oil freight vessels, as well as funding extended to Vasilkovskoje Gold to develop the largest known gold deposit in Kazakhstan. In addition, cash flows used by investing activities in 2009 reflected Glencore's participation in a capital raising by Katanga, Century Aluminum partially offset by the sale of Glencore's 51 per cent. interest in the Cartagena oil refinery. The level of cash flows used by investing activities reduced in the year ended 31 December 2009, as compared to the year ended 31 December 2008, as management was more cautious in deploying capital and prioritised higher return projects in light of the global economic downturn. The net outflow in 2010 primarily related to the U.S.$2,000 million base settlement of the 2009 Xstrata rights issue via exercise of the Prodeco call option, the acquisition of a 51.5 per cent. stake in Chemoil and a 100 per cent. stake in Pacorini Metals, the provision of a U.S.$200 million secured loan to PT Bakrie Group (secured by a 4.7 per cent. equity ownership interest in PT Bumi Resources); and the continued capital expenditure programs in respect of Vasilkovskoje Gold's start up, upstream oil development projects in West Africa, the development of the Mutanda copper/cobalt mine and production

expansions at Katanga and Prodeco. The production growth initiatives (primarily coal, copper, gold and oil) are all expected to progressively result in substantially enhanced income and cashflow generating potential in future periods.

Net cash generated/(used) by financing activities

Net cash generated/(used) by financing activities was U.S.$5,247 million, U.S.$4,208 million and U.S.$(2,842) million in 2010, 2009 and 2008, respectively. In 2009 and 2010, financing requirements increased primarily as a result of the increase in commodity prices and resulting impacts on working capital funding and to fund the ongoing capital expenditure and investments noted above. Over 2008, cash inflows resulted from the sharp decrease in commodity prices over the fourth quarter which in turn was used to repay debt.

Discussion of balance sheet items

Total assets were U.S.$79,787 million as at 31 December 2010, representing an increase of 20 per cent. from U.S.$66,276 million as at 31 December 2009. Current assets increased from U.S.$38,725 million in 2009 to U.S.$44,296 million in 2010. The adjusted current ratio (current assets over current liabilities, both adjusted to exclude other financial liabilities) at 31 December 2010 was 1.26 compared to 1.37 at 31 December 2009. This reduction is primarily attributable to the Xstrata secured bank loans (U.S.$2,292 million) and the 2011 Eurobond (U.S.$765 million) moving from non-current borrowings to current borrowings. Excluding the Xstrata secured bank loans from current borrowings, which Glencore is currently in discussion with banks regarding extension/refinancing with a new long-term tenor, results in an adjusted current ratio of 1.37, consistent with the corresponding prior year period. Non-current assets increased from U.S.$27,551 million in 2009 to U.S.$35,491 million as at 31 December 2010, primarily due to the first time consolidation of Vasilkovskoje Gold, following its full acquisition by Kazzinc, the reclassification of Prodeco from "assets held for sale" and the capital expenditure and project funding programmes noted above.

Production inventories consist of materials, spare parts, work in process and finished goods held by the production entities. Marketing inventories comprise inventories sourced and held for marketing activity purposes. Glencore has a number of dedicated facilities which finance a portion of its marketing inventories. In each case, the inventory has been retained on our balance sheet with the proceeds received recognised as either short-term debt, commodities sold with agreements to repurchase or trade advances from buyers, depending upon its funding nature.

As at 31 December 2010, 98 per cent., or U.S.$14,331 million, of total trading inventories were contractually sold or hedged (readily marketable inventories), compared to 98 per cent., or U.S.$12,945 million, at 31 December 2009. Readily marketable inventories are inventories that Glencore considers to be readily convertible into cash, due to their liquid nature, widely available markets, and the fact that any associated price risk is covered either by a physical sale transaction, or a hedge transaction on a commodity exchange or with a highly rated counterparty. Given the highly liquid nature of these inventories, which represent a significant share of current assets, Glencore believes it is appropriate to consider them together with cash equivalents in analysing net debt levels and trends and computing certain debt coverage ratios.

In addition, accounts receivable form a significant portion of Glencore's assets. Glencore has entered into certain arrangements to finance a portion of its receivables. In each case, the receivable has been retained on our balance sheet with the proceeds received recognised as current borrowings (see Section VI: "Historical Financial Information").

After taking into account these readily marketable inventories, net debt was U.S.$14,756 million as at 31 December 2010, an increase of U.S.$4,570 million from U.S.$10,186 million as at 31 December 2009 with the exercise of the Prodeco call option accounting for a substantial part of the increase, some U.S.$2.4 billion including all cash components in 2010. The ratio of net debt to Adjusted EBITDA pre-exceptional items improved from 2.59 in 2009 to 2.38 in 2010. Current capital employed, together with listed investments (at carrying value), exceeded total debt by U.S.$4,483 million in 2010 compared to U.S.$6,198 million in 2009.

Equity, reserves and amounts attributable to profit participation shareholders as at 31 December 2010 were U.S.$19,613 million, an increase of U.S.$2,927 million (18 per cent.) compared with U.S.$16,686 million as at 31 December 2009.

Capital resources and financing initiatives

Glencore's business requires high levels of working capital funding and significant liquidity. Glencore's primary financial objective is to maintain a strong financial profile in line with an investment grade rating, including having access to sufficient amounts of liquidity to finance its operations and planned growth. Glencore believes that the current level of its cash flow from operations, its existing credit facilities, the liquidity and quality of its current trading assets, the high level of readily marketable inventories and the self-liquidating nature of its physical marketing activities, together with its ability to access international bank and debt capital markets allow Glencore to finance all of its existing and currently planned business needs, including working capital requirements and payments due on its outstanding indebtedness and contractual obligations. Glencore expects to repay its long-term debt obligations through cash from operations and/or future financings.

Glencore's short-term debt generally finances its current assets, comprising inventories and trade receivables, which are either self-liquidating or otherwise subject to a high rate of turnover. Glencore meets these financing requirements by maintaining appropriate levels of cash reserves and ensuring that it has sufficient headroom under its committed revolving credit facilities. It is Glencore's policy to maintain a minimum level of committed liquidity headroom of U.S.$3 billion to meet all expected and unexpected cash requirements of its business. The liquidity headroom is provided in the form of cash, undrawn committed revolving credit facilities and marketable securities. Of the U.S.$4,220 million headroom as at 31 December 2010, U.S.$2,691 million was provided by the undrawn committed revolving credit facilities. Glencore has alternative sources of headroom which are not included in these figures, e.g. liquidity can be raised quickly through Glencore's listed investments, either by using them as security for loans or by selling them and Glencore has undrawn uncommitted facilities which are not included in the reported headroom.

For additional detail on the indebtedness of the Group, including the position as at 28 February 2011, please see Section V: "Capitalisation and Indebtedness Statement".

Indebtedness

As at 31 December 2010, Glencore had the following principal indebtedness outstanding:

Facility/Programme	Initial issue/ current rollover	Amount issued or outstanding 31 December 2010
		(U.S.$ million)
2014 144A Notes	950	946
2011 Eurobonds (€600 million)	739	765
2013 Eurobonds (€850 million)	1,078	1,080
2015 Eurobonds (€750 million)	1,200	968
2017 Eurobonds (€1,250 million)	1,708	1,677
2019 Sterling Bond (GBP 650 million)	1,266	999
2016 Swiss Bond (CHF 600 million)	593	639
2014 Convertible bonds	2,300	2,132
Xstrata secured bank loan	2,800	2,292
Perpetual Notes	1,050	1,027
Purchase of profit participation certificates	1,855	1,855
Committed syndicated revolving credit facilities	10,260	7,259
U.S. commercial paper	1,000	310
Committed secured inventory/receivables facility	1,700	1,700
Committed secured receivables facilities	700	700
Bilateral inventory repurchase agreements	888	888
Other bank loans	4,895	4,895
Total		30,132
Commodities sold with agreements to repurchase	484	484
Total borrowings		30,616
Less: cash and cash equivalents and marketable securities		1,529
Net funding		29,087

Description of principal indebtedness

144A Notes

The 144A Notes consist of U.S.$950 million 6 per cent. coupon Notes due 2014. The Notes are recognised at amortised cost at an effective interest rate of 6.15 per cent. per annum.

Xstrata secured bank loans

The Xstrata secured bank loans comprise two facilities with a total amount of U.S.$2,800 million, with U.S.$2,300 million outstanding at 31 December 2010 and 2009. Both facilities mature in September 2011. The facilities have been accounted for as secured bank loans which bear interest at a rate of U.S.$ LIBOR plus a margin. As at 31 December 2010, U.S.$4,199 million (2009: U.S.$4,188 million; 2008: U.S.$2,739 million) of the carrying value of Glencore's investment in Xstrata was pledged as security.

Convertible bonds

In December 2009, Glencore issued U.S.$2 billion 5 per cent. coupon convertible bonds due December 2014. The bonds are convertible at the option of investors into a certain percentage of Glencore's equity upon a qualifying IPO or upon other pre-determined qualifying events. The bonds contain several embedded derivatives which IFRS requires be accounted for separately, the most significant of these being that if the bonds have not been converted and no qualifying event occurs, they will be redeemed at maturity at 108.1 per cent. of their nominal amount. In addition, if a qualifying IPO or other pre-determined qualifying events have not occurred prior to December 2012, bondholders may, subject to Glencore having achieved a "pre-exceptional" consolidated net income of U.S.$3.5 billion in the preceding 12 months or in the event that Glencore is acquired for cash consideration, put the bonds back to Glencore at an amount which achieves a cumulative annualised return of 20 per cent. Payment in this regard could occur from mid-2013 at the earliest.

The bonds consist of a liability component and an equity component. The fair values of the liability component (U.S.$1,923 million) and the equity component (U.S.$77 million) were determined, using the residual method, at issuance of the bonds. The liability component is measured at amortised cost at an effective interest rate of 6.69 per cent. per annum. At issuance and each subsequent period end, the embedded derivatives were concluded to have a fair value of U.S.$ nil due to the probability weighting attributed to the related conditions. During the first half of 2010, U.S.$300 million of additional convertible bonds, convertible into 0.84 per cent. of the Company's equity, were issued under the same terms and conditions as those issued in December 2009 with the equity component equalling U.S.$12 million and the liability component equalling U.S.$288 million. The Global Offering is a qualifying IPO which will allow holders of the bonds to convert. Conversion by all holders would amount to 6.25 per cent. of the Company's pre-Offering equity as at 31 December 2010.

Euro, sterling and Swiss Franc bonds

Glencore has issued bonds denominated in Euro, Sterling and Swiss Francs where, upon issuance, the principal amounts and the future interest payments were swapped into their U.S. dollar equivalent. The details of amounts issued and outstanding are as follows:

	Maturity	Initial U.S.$ equivalent	U.S.$ fixed interest rate in %	2008	2009	2010
€600 million 5.375% coupon bonds	Sep 2011	739	5.78	834	817	765
€850 million 5.250% coupon bonds	Oct 2013	1,078	6.60	1,171	1,154	1,080
€750 million 7.125% coupon bonds	April 2015	1,200	6.86	1,031	1,030	968
€1,250 million 5.250% coupon bonds	March 2017	1,708	6.07	0	0	1,677
Eurobonds total		4,725		3,036	3,001	4,490
GBP 650 million 6.5% coupon bonds	Feb 2019	1,266	6.58	920	1,013	999
CHF 600 million 3.625% coupon bonds	April 2016	593	4.87	0	0	639
Total		6,584		3,956	4,014	6,128

Perpetual notes

The perpetual notes consisted of U.S.$700 million 8 per cent. perpetual notes, callable after February 2011 at par. In December 2010, Glencore announced its intention to call U.S.$300 million of the outstanding notes. This partial redemption was subsequently completed on 6 February 2011.

In October 2010, Glencore issued U.S.$350 million 7.5 per cent. perpetual notes, callable after October 2015 at par.

Ordinary profit participation certificates

Profit participation certificates ("PPC") bear interest at six-month U.S.$ LIBOR and in the event of certain triggering events (see Section VI: "Historical Financial Information"), all PPCs would be subordinated to unsecured lenders. From 1 January 2011 to the date of the Restructuring, in accordance with existing agreements and past practice, Glencore redeemed and reclassified as borrowings a certain number of PPCs from profit participation shareholders representing an aggregate amount of approximately U.S.$268 million. These interests were held by employees who ceased employment with Glencore during this period. The amounts will be paid in installments over a period of five years with interest payable at six month U.S.$ LIBOR. See Note 14 to Section VI: "Historical Financial Information".

Committed revolving credit facilities

In May 2010, Glencore replaced the previous 364-day U.S.$815 million revolving credit facility with a new 364-day U.S.$1,375 million facility with a one year term out option at Glencore's discretion as well as a 364-day U.S.$515 million Asian focused tranche. In addition, Glencore replaced the U.S.$8,180 million medium-term revolving credit facility with a new three-year revolving credit facility of U.S.$8,370 million and cancelled the U.S.$6,650 million forward start facility concluded in 2009. Funds drawn under the medium-term revolving credit facility which are used to finance current working capital are classified as current debt, while the portion drawn to fund non-current assets is classified as non-current debt. Up to U.S.$1 billion of the medium-term tranche may be used as liquidity back up for Glencore's corporate U.S. commercial paper programme.

Liquidity

Glencore maintains adequate liquidity through its committed credit facilities, diversified funding sources and fast-turning, liquid working capital. As at 31 December 2010, Glencore had available headroom (in the form of cash, undrawn committed facilities and marketable securities) exceeding U.S.$4,220 million, which, is above its U.S.$3,000 million internal target. Glencore reflects two further sources of liquidity in its internal definition of net debt, namely marketable securities and readily marketable inventory. Readily marketable inventory comprises inventory that is readily convertible into cash due to their liquid nature, widely available markets and the fact that any associated price risk is covered. This includes, for example, LME-approved inventory (such as copper or aluminium) held at LME warehouses.

Certain debt arrangements require compliance with specific financial covenants related to current ratio and a maximum long-term debt to tangible net worth ratio. As at 31 December 2010, there was adequate headroom available under both of these covenants. No credit facilities or funding programmes include rating triggers which would accelerate repayment obligations in the event of a credit rating downgrade.

In light of Glencore's extensive funding activities in the public debt capital markets, maintaining its investment grade ratings is a priority for Glencore. Glencore promotes an ongoing dialogue with both its rating agencies with a view to maintaining its investment grade ratings. On 18 April 2011, Moody's confirmed Glencore's issuer rating of Baa2 (negative) and, on 14 April 2011, Standard & Poor's confirmed Glencore's long-term corporate rating of BBB− (stable).

The following table shows Glencore's gearing ratio as at 31 December 2010:

	As at 31 December 2010
	(U.S.$ million) (unaudited)
Interest-bearing loans and borrowings	30,132
Commodities sold with agreements to repurchase	484
Less: cash and cash equivalents and marketable securities	(1,529)
Less: readily marketable inventories[1]	(14,331)
Net debt	14,756
Invested capital[2]	22,507
Equity and net debt	37,263
Gearing ratio (Invested capital[2]/Invested capital[2] and net debt)	.60

Notes:

(1) Readily marketable inventories comprises inventory that is readily convertible into cash due to their liquid nature, widely available markets and the fact that any associated price risk is covered.

(2) Invested capital is the sum of equity capital, non-controlling interests, reserves and amounts attributable to profit participation shareholders.

Inventories

Production inventories consist of materials, spare parts, work in process and finished goods held by the production entities, whereas marketing inventories are commodities held by the marketing entities. Marketing inventories were U.S.$14,588 million, U.S.$13,179 million and U.S.$6,294 million for the years ended 31 December 2010, 2009 and 2008, respectively. The increase in inventories over the track record period, in particular the significant movement between 2008 and 2009, was due to the large fluctuation in commodity prices as a result of the onset of the financial crisis. Marketing inventories include readily marketable inventories of U.S.$14,331 million (2009: U.S.$12,945; 2008: U.S.$5,877 million). Movements in these inventories were largely driven by the movement in commodity prices. Readily marketable inventories are inventories that Glencore considers to be readily convertible into cash due to their very liquid nature, widely available markets and the fact that the price risk is covered either by a physical sale transaction or hedge transaction on a commodity exchange or with a highly rated counterparty.

Glencore utilises a number of dedicated financing facilities to finance portions of its marketing inventories, further diversifying its funding sources and providing it with cost effective funding. In each case, the inventory has not been derecognised as the Group retains the principal risks and rewards of ownership. The proceeds received are recognised as either current borrowings, commodities sold with agreements to repurchase or trade advances from buyers, depending upon their funding nature.

Capital expenditure and contractual obligations

Capital expenditure for the acquisition of property, plant and equipment is generally funded through the cash flow generated by the respective industrial entities. As at 31 December 2010, U.S.$787 million (2009: U.S.$815 million; 2008: U.S.$967 million), 100 per cent. of which relates to expenditure to be incurred over the next year, was contractually committed for the acquisition of property, plant and equipment. Glencore has also expanded its operations and production through acquisitions.

Certain of Glencore's exploration tenements and licences require it to spend a minimum amount per year on development activities, a significant portion of which would have been incurred in the ordinary course of operations. As at 31 December 2010, U.S.$404 million (2009: U.S.$284 million; 2008: U.S.$262 million) of such development expenditures are to be incurred, of which 36 per cent. are for commitments to be settled over the next year.

Glencore procures seagoing vessel/chartering services to meet its overall marketing objectives and commitments. At year-end, Glencore has committed to future hire costs to meet future physical delivery and sale obligations and expectations of U.S.$2,608 million (2009: U.S.$2,185 million; 2008: U.S.$2,880 million), 50 per cent. of which are for services to be received over the next two years.

The following table shows a breakdown of the capital expenditures for Glencore for the years ended 31 December 2008, 31 December 2009 and 31 December 2010 and projected capital expenditure through 2015:

	2008	2009	2010	Projected total capital expenditure through 2013	Projected total capital expenditure through 2015
			(U.S.$ million) *(unaudited)*		
Kazzinc	568	367	350	834	1,320
Katanga	N/A	62	221	1,044	1,298
Mopani	137	58	130	512	744
Prodeco	309	242	277	919	1,152
West African Oil Assets	54	37	238	791	813
Other	807	350	674	900	N/A
Total	**1,875**	**1,116**	**1,890**		

In addition to capital expenditure at Glencore's existing industrial assets, Glencore made acquisitions in 2010 to expand its activities, including increasing its effective ownership interest in Vasilkovskoje Gold and finalising the purchase of a majority stake in Chemoil.

As shown in the table above, Glencore has significant expansion projects in progress which are further described in Section I: "Information on Glencore".

Contractual obligations

As part of Glencore's ordinary sourcing and procurement of physical commodities and other ordinary marketing obligations, the selling party may request that a financial institution act as either (i) the paying party upon the delivery of product and qualifying documents through the issuance of a letter of credit or (ii) the guarantor by way of issuing a bank guarantee accepting responsibility for Glencore's contractual obligations. As at 31 December 2010, U.S.$8,956 million (2009: U.S.$7,178 million; 2008: U.S.$5,450 million) of such commitments have been issued on behalf of Glencore, which will be settled simultaneously upon physical delivery of the commodity.

The following table sets out Glencore's total future commitments to settle contractual obligations as at 31 December 2010:

		Payment due by period			
	Total	Less than 1 Year	1–2 Years	2–5 Years	More than 5 Years
			(U.S.$ million)		
Capital expenditure for acquisition of property, plant and equipments	787	787	0	0	0
Exploration tenements and licences	404	147	41	27	189
Seagoing vessels/chartering services	2,608	743	553	867	445
Letters of credit	8,956	8,956	0	0	0
Operating office and warehouse/storage lease obligations	473	97	74	151	151
Total	13,228	10,730	668	1,045	785

In addition to the future commitments illustrated in the table above, Glencore also has the potential future obligations described below, which are dependent upon the evaluation and final approval for each development.

Prodeco currently exports the majority of its coal through Puerto Zuñiga, which operates under a private concession awarded by the Columbian government. The concession expired in March 2009; however, the Colombian government has continued to grant Prodeco the right to use the port under annual lease agreements. To comply with new government regulations on loading methods, which became effective from July 2010, and to alleviate the uncertainty of the annual concession renewal process associated with Puerto Zuñiga, Prodeco has initiated the construction of a new, wholly owned, port facility ("Puerto Nuevo") which has been contracted at a cost of U.S.$528 million and is expected to be commissioned over the first

half of 2013. If the concession does not continue to be extended, Prodeco's export capability would be curtailed, which could significantly impact operations until Puerto Nuevo is operational. As at 31 December 2010, U.S.$55 million of the estimated initial investment has been incurred.

In August 2010, Glencore acquired an ultimate 37.5 per cent. interest in the Kansuki concession, a 180 square kilometre copper and cobalt pre-development project which borders Glencore's partly owned Mutanda concession in the DRC. In exchange, Glencore has (i) an obligation to finance the first U.S.$400 million of development related expenditures, if any, as and when such expenditure is incurred, (ii) the right to operate the operations, and (iii) a life of mine off-take agreement for all copper and cobalt produced by Kansuki. In addition, one of the partners in Kansuki has the right to sell an additional 18.75 per cent. ultimate interest to Glencore at the then calculated equity value of the operation, at the earlier of the date the operation produces a minimum annual 70,000 metric tonnes of copper and August 2013. Kansuki is currently completing its initial feasibility study for submission by June 2011. As at 31 December 2010, U.S.$11 million of development expenditure had been incurred.

In November 2010, Glencore and Blackthorn Resources Limited completed a joint venture agreement to develop the Perkoa Zinc Project ("Perkoa") located in Burkina Faso, Africa. Under the terms of the agreement, Glencore will obtain a 50.1 per cent. effective ownership in Perkoa in exchange for (i) an obligation to finance the first U.S.$80 million of development-related expenditures, if any, as and when such expenditure is incurred, (ii) the right to operate the operations, and (iii) a life of mine off-take agreement for all zinc produced by Perkoa. As at 31 December 2010, U.S.$ nil million of development expenditure had been incurred.

Glencore has agreed with Verny to acquire additional stakes in Kazzinc. These purchases will increase its ownership from 50.7 per cent. to 93.0 per cent. for a total transaction consideration of U.S.$3.2 billion. Subject to satisfaction of certain conditions, which include receipt of applicable regulatory approvals and the occurrence of UK Admission, consideration for these purchases will be settled through the issuance of U.S.$1 billion of Ordinary Shares at the Offer Price (such issuance expected to occur at the earlier of UK Admission and satisfaction of applicable conditions precedent) and U.S.$2.2 billion in cash (to be paid in tranches between October and December 2011). The acquisition of these additional stakes is expected to be completed by the end of December 2011. The terms of the acquisition have been negotiated on an arm's length basis and the price and structuring of the consideration in respect of these purchases is based on Glencore's detailed valuation of Kazzinc. In addition, Glencore's stake in Kazzinc may be further increased to 99.4 per cent. through the exercise of a put or call option in respect of Verny Investments' remaining 6.4 per cent. interest in Kazzinc, which is conditional on amongst other things, an initial public offering of Kazzinc's gold assets. See Section X: "Additional Information" for further details of these purchases and the terms of the Kazzinc SPAs.

Off-balance sheet arrangements

Glencore has no off-balance sheet entities or off-balance sheet arrangements.

Contingent liabilities

The amount of corporate guarantees in favour of associated and third parties as at 31 December 2010, was U.S.$69 million (2009: U.S.$73 million; 2008: U.S.$66 million). Glencore has also pledged U.S.$113 million of its investment in UC Rusal as a guarantee against certain borrowings of UC Rusal.

Litigation

Glencore deals with over 7,200 suppliers and customers. In the ordinary course of its business, Glencore is from time to time involved in commercial disputes as both claimant and defendant. Certain legal actions, other claims and unresolved disputes are pending against Glencore. Whilst Glencore cannot predict the results of any litigation, it believes that it has meritorious defences against those actions or claims. Glencore believes the likelihood of any liability arising from these claims to be remote and that the liability, if any, resulting from any litigation will not have a material adverse effect on its consolidated income, financial position or cash flows.

Environmental contingencies

Glencore's operations, predominantly those arising from the ownership in industrial assets, are subject to various environmental laws and regulations. Glencore is in compliance with those laws and regulations.

Glencore accrues for environmental contingencies when such contingencies are probable and reasonably estimable. Such accruals are adjusted as new information develops or circumstances change. Recoveries of environmental remediation costs from insurance companies and other parties are recorded as assets when the recoveries are virtually certain. At this time, Glencore is unaware of any material environmental incidents at its locations.

Financial risk management

Overview

Glencore's business could be impacted by various external factors, including a major global economic downturn which would in turn result in significantly lower commodity prices and demand, as well as political events and unfavourable actions by governments, natural catastrophes, operational disruptions and financial risks. It is Glencore's policy and practice to identify and, where appropriate and practical, to actively manage such risks. Glencore has in place the appropriate commodity trading risk management systems and believes that these, together with its VaR computation, are the most appropriate measure of its marketing risk management analysis. Glencore does not engage in any material speculative trading activities.

Glencore's objectives in managing its capital base include preserving its overall financial health and strength for the benefit of all stakeholders and safeguarding its ability to continue as a going concern, while generating sustainable long-term profitability.

Glencore's activities expose it to a variety of financial risks: market risk (including commodity price risk, interest rate risk and currency risk), credit risk, performance risk and liquidity risk. Glencore's overall risk management programme focuses on the unpredictability of financial markets and seeks to protect its financial security and flexibility by using derivative financial instruments to substantially hedge these risks. Glencore's finance and risk professionals, working in co-ordination with the commodity departments, monitor, manage and report regularly to management on the financial risks and exposures facing Glencore. There have been no material changes during this year in the exposures to the financial risks faced by Glencore or the manner in which Glencore manages and measures them. Certain debt arrangements require compliance with specific financial covenants related to working capital and current ratio and a maximum long-term debt to tangible net worth ratio. During the period under review, Glencore has complied with these requirements.

Market risks

Glencore is exposed to price movements for the inventory it holds and for the products it produces, which are not held to meet priced-forward contract obligations. Glencore manages a significant portion of this exposure through futures and options transactions on worldwide commodity exchanges, or in OTC markets, to the extent available. For further details please see Section VI: "Historical Financial Information".

Glencore has entered into futures transactions to hedge the price risk of future-specific operating expenditures. These transactions were identified as cash flow hedges. The fair value of these derivatives is as follows:

	Notional amounts		Recognised fair values		Average maturity
	Buy	Sell	Assets	Liabilities	
			(U.S.$ million)		
Commodity futures—2008	0	391	0	75	2010
Commodity futures—2009	0	195	0	41	2011
Commodity futures—2010	0	187	0	75	2012

To the extent Glencore purchases commodities or related assets for delivery to a customer, a downturn in the price of those assets could result in losses to Glencore. To the extent Glencore agrees to sell commodities to a customer, an increase in the price of those assets could result in losses to Glencore, as Glencore seeks to acquire the underlying commodities in a rising market. In order for Glencore to mitigate the risks associated with commodity price fluctuations and the potential losses associated therewith, Glencore has implemented marketing policies designed to substantially hedge these risks. Glencore's marketing activities involve a significant number of purchase and sale transactions involving various commodities. The vast majority of Glencore's long positions (where it has physical commodities or has

agreed to buy physical commodities) are offset by short positions (where Glencore has agreed to sell physical commodities). Similarly, Glencore's short positions are typically offset by long positions. Glencore may also take some long or short positions which are not offset or which are not completely offset by short or long positions, as the case may be (such positions are called open positions). It does this when it thinks it has sufficient visibility over trends in the market and when the position has been approved through the required risk management channels.

For additional information about Glencore's commodity price risk management, see Section I: "Information on Glencore".

One of the tools used by Glencore to monitor its open position and limit its primary market risk exposure, namely commodity price risk related to its physical marketing activities, is the use of a value at risk ("VaR") computation. VaR is a risk measurement technique, which estimates the potential loss that could occur on risk positions as a result of movements in risk factors over a specified time horizon, given a specific level of confidence. The VaR methodology is a statistically defined, probability based approach that takes into account market volatilities, as well as risk diversification by recognising offsetting positions and correlations between commodities and markets. In this way, risks can be measured consistently across all markets and commodities and risk measures can be aggregated to derive a single risk value. Glencore has set a consolidated VaR limit (one day 95 per cent.) of U.S.$100 million representing 0.55 per cent. of Glencore shareholders' funds.

Glencore's VaR computation currently covers its business in the key base metals (aluminium, nickel, zinc, copper, lead, etc), coal, oil/natural gas and the main risks in the Agricultural Products business segment (grain, oilseeds, sugar and cotton) and assesses the open-priced positions which are those subject to price risk, including inventories of these commodities. Due to the lack of a liquid terminal market, Glencore previously did not include a VaR calculation for alumina or ferroalloy commodities, however, it monitored the market risk in respect of these commodities via the regular reporting of net open volumetric positions. For further detail see Section VI: "Historical Financial Information".

During 2009, certain commodities, such as coal, which Glencore markets and accounts for at fair value were not included in the VaR calculation, as well established and liquid price points were not available. The positions are reported on the daily position sheets and, assuming the net position as at the balance sheet date was outstanding for the whole year, market prices were 5 per cent. higher/lower and all other variables held constant, Glencore's profit and equity for the year ended 31 December 2009 would decrease/increase by U.S.$30.0 million (2008 increase/decrease by U.S.$14.0 million).

The Group has a one day, 95 per cent. VaR limit of U.S.$100 million and during the year ended 31 December 2010, the actual one day 95 per cent. VaR level was approximately U.S.$43 million. This means that the Group manages its open positions in its marketing operations such that it does not put itself at risk of losing more than U.S.$100 million over the course of one day, to a 95 per cent. statistical level of certainty, and during the year ended 31 December 2010, the Group's marketing operations' open positions, based upon a statistical certainty of 95 per cent., never exceeded potential losses of U.S.$43 million on any given day, on average for the year. In addition, Glencore conducts regular stress testing on its marketing portfolio. Daily position sheets are distributed and monitored and weekly VaR simulations are run to determine potential future exposure. The table below shows 95 per cent. and 99 per cent. VaR levels at year end and averaged for each of the years ended 31 December 2008, 2009 and 2010.

	Year end		Average	
	95%	99%	95%	99%
	(U.S.$ million)			
2008	53.1	79.3	50.1	70.7
2009	27.6	39.2	26.4	37.3
2010	58.1	79.7	42.5	60.1

VaR does not purport to represent actual gains or losses in fair value on earnings to be incurred by Glencore, nor does Glencore claim that these VaR results are indicative of future market movements or representative of any actual impact on its future results. VaR should always be viewed in the context of its limitations; notably, the use of historical data as a proxy for estimating future events, market illiquidity risks and tail risks. Glencore recognises these limitations, and thus complements and continuously refines its VaR analysis by analyzing forward looking stress scenarios and back testing calculated VaR against actual movements arising in the next business week. Glencore regularly backtests its VaR to establish that

it is a statistically adequate reflection of realised gains and losses and the inherent "riskiness" of the marketing portfolio as a whole.

Glencore's future cash flows related to its forecast energy and minerals production are also exposed to commodity price movements. Glencore manages this exposure through a combination of portfolio diversification, occasional shorter-term hedging via futures and options transactions and insurance products and the continuous internal monitoring, reporting and quantification of the underlying operations' estimated valuations.

Interest rate risk

Glencore is exposed to various risks associated with the effects of fluctuations in the prevailing levels of market interest rates on its assets and liabilities and cash flows. Matching of assets and liabilities is utilised as the dominant method to hedge interest rate risks. Floating-rate debt is predominantly used to fund fast-turning working capital and interest internally charged on the funding of this working capital and is based on U.S.$ LIBOR and, accordingly, prevailing market interest rates are continuously factored into transactional pricing and terms.

Assuming the amount of floating-rate liabilities at the balance sheet date were outstanding for the whole year, interest rates were 50 basis points higher/lower and all other variables held constant, Glencore's profit and equity for the year ended 31 December 2010 would decrease/increase by U.S.$91 million (2009: decrease/increase by U.S.$71 million; 2008: increase/decrease by U.S.$64 million).

Currency risk

Glencore's reporting currency and the functional currency of the majority of Glencore's operations is the U.S. dollar, as this is assessed to be the principal currency of the economic environment in which Glencore operates. Transactions in foreign currencies are converted into the functional currency of each entity using the exchange rate prevailing at the transaction date. Monetary assets and liabilities outstanding at year end are converted at year-end rates. The resulting exchange differences are recorded in the consolidated statement of income. The exchange rates between relevant local currencies and the U.S. dollar have historically fluctuated, and the translation effect of such fluctuations could affect Glencore's results and financial condition. However, Glencore does not believe that it is materially exposed to non-U.S. dollar currency risk.

Glencore's debt-related payments (both principal and interest) are denominated in or swapped into U.S. dollars. The majority of Glencore's operating expenses are incurred in U.S. dollars, with the remainder being incurred in a mix of currencies, of which the Swiss Franc, pounds sterling, Australian dollar and Euro are the predominant non-U.S. dollar currencies.

Glencore has issued Euro-denominated, Swiss Franc-denominated and pounds sterling-denominated bonds (see Section VI: "Historical Financial Information"). Cross-currency swaps were taken out to hedge the currency risk on the principle and related interest payments of these bonds. These contracts were designated as cash flow hedges of the foreign currency risks associated with the bonds. The fair value of these derivatives is as follows:

	Notional amounts		Recognised fair values		Average maturity
	Buy	Sell	Assets	Liabilities	
			(U.S.$ million)		
Cross currency swap agreements—2008	0	4,283	0	384	2015
Cross currency swap agreements—2009	0	4,283	0	48	2015
Cross currency swap agreements—2010	0	6,584	0	185	2015

Credit risk

Financial assets which potentially expose Glencore to concentrations of credit risk consist principally of cash and cash equivalents, marketable securities, receivables and advances, derivative instruments and long-term advances and loans.

Glencore actively and continuously monitors the credit quality of its counterparties through internal reviews and a credit scoring process which includes, where available, public credit ratings. Balances with counterparties not having a public investment grade or equivalent internal rating are typically enhanced to

investment grade through the extensive use of credit enhancement products, such as letters of credit or insurance products. Glencore has a diverse customer base, with no customer representing more than 3.4 per cent. (2009: 2.3 per cent.; 2008: 2.8 per cent.) of its trade receivables or accounting for more than 3.0 per cent. of its revenues over the year ended 31 December 2010 (2009: 2.8 per cent.; 2008: 3.7 per cent.).

Performance risk

Performance risk arises from the possibility that physical industrial counterparties may not be willing or able to meet their future contractual sale or purchase obligations to or from Glencore. Glencore undertakes the assessment, monitoring and reporting of performance risk within its overall credit management process. Glencore's market breadth and diversified customer base as well as the standard pricing mechanism in the majority of Glencore's commodity portfolio, which does not fix prices beyond three months (with the exception of coal which is marketed under annual pricing agreements) ensure that performance risk is adequately mitigated. The commodity industry is continuing a trend towards shorter fixed price contract periods, in part to mitigate against such potential performance risk, but also due to the development of more transparent and liquid spot markets, e.g. coal and iron ore and associated derivative products and indexes.

Liquidity risk

Liquidity risk is the risk that Glencore is unable to meet its payment obligations when due, or that Glencore is unable, on an ongoing basis, to borrow funds in the market on an unsecured, or even secured, basis at an acceptable price to fund actual or proposed commitments. Prudent liquidity risk management implies maintaining sufficient cash and cash equivalents through the availability of adequate committed funding facilities. Glencore has set itself a minimum liquidity target of U.S.$3 billion to be maintained at all times. Glencore's credit profile, diversified funding sources and committed credit facilities ensure that sufficient liquid funds are maintained to meet its liquidity requirements. As part of its liquidity management, Glencore closely monitors and plans for its future capital expenditure and proposed investments, as well as credit facility refinancing/extension requirements.

As at 31 December 2010, Glencore had available committed undrawn credit facilities, cash and cash equivalents and marketable securities exceeding U.S.$4,220 million (2009: U.S.$3,826 million; 2008: U.S.$5,255 million). The maturity profile of Glencore's financial liabilities based on the contractual terms is as follows:

2010	After 5 years	Due 3–5 years	Due 2–3 years	Due 1–2 years	Due 0–1 years	Total
			(U.S.$ million)			
Borrowings	4,152	4,974	7,094	2,031	11,881	30,132
Expected future interest payments	668	949	766	800	834	4,017
Commodities sold with agreements to repurchase	0	0	0	0	484	484
Accounts payable	0	0	0	0	16,145	16,145
Other financial liabilities	0	739	288	955	6,084	8,066
Liabilities held for sale	0	0	0	0	45	45
Total	4,820	6,662	8,148	3,786	35,473	58,889
Current assets					44,296	44,296

Critical accounting policies, key judgements and estimates

The preparation of the financial information contained in this Prospectus requires the Directors to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as the disclosure of contingent assets and liabilities as at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual outcomes could differ from those estimates.

Glencore has identified the following areas as being critical to understanding Glencore's financial position, as they require the Directors to make complex and/or subjective judgements and estimates about matters that are inherently uncertain.

Valuation of derivative instruments

Derivative instruments are carried at fair value and Glencore evaluates the quality and reliability of the assumptions and data used to measure fair value in the three hierarchy levels, as prescribed by IFRS 7. Fair values are determined in the following ways: externally verified via comparison to quoted market prices (level 1); by using models with externally verifiable model inputs (level 2); or by using alternative procedures such as comparison to comparable instruments and using models with unobservable market inputs requiring Glencore to make market-based assumptions. At 31 December 2008, 2009 and 2010, the majority of these financial instruments were verified externally. Where the model was not validated and/or the inputs were not verified due to the lack of appropriate market quotations, the fair values were actively reviewed by management. For additional information regarding fair value, see Section VI: "Historical Financial Information".

Depreciation and amortisation of mineral and petroleum rights and project development costs

Mineral and petroleum rights and project development costs are amortised using the units of production method ("UOP"). The calculation of the UOP rate of amortisation, and therefore the annual amortisation charge to operations, can fluctuate from initial estimates. This could generally result when there are significant changes in any of the factors or assumptions used in estimating mineral or petroleum reserves, notably changes in the geology of the reserves and assumptions used in determining the economic feasibility of the reserves. Such changes in reserves could similarly impact the useful lives of assets depreciated on a straight-line basis, where those lives are limited to the life of the project, which in turn is limited to the life of the proven and probable mineral or petroleum reserves. Estimates of proven and probable reserves are prepared by independent experts in extraction, geology and reserve determination. Assessments of UOP rates against the estimated reserve base and the operating and development plan are performed regularly.

Impairments

Investments in associates, jointly controlled entities and other investments, long-term advances and loans and property, plant and equipment, goodwill and other intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be fully recoverable or at least annually for goodwill or other intangible assets of indefinite life. If an asset's recoverable amount is less than the asset's carrying amount, an impairment loss is recognised. Future cash flow estimates which are used to calculate the asset's value in use are based on expectations about future operations primarily comprising estimates about production and sales volumes, commodity prices, reserves, operating, rehabilitation and restoration costs and capital expenditures. Changes in such estimates could impact recoverable values of these assets. Estimates are reviewed regularly by management.

Restoration, rehabilitation and decommissioning costs

A provision for future restoration, rehabilitation and decommissioning costs requires estimates and assumptions to be made around the relevant regulatory framework, the magnitude of the possible disturbance and the timing, extent and costs of the required closure and rehabilitation activities. To the extent that the actual future costs differ from these estimates, adjustments will be recorded and the income statement could be impacted. The provisions including the estimates and assumptions contained therein are reviewed regularly by management.

Provisions

The amount recognised as a provision, including tax, legal, contractual and other exposures or obligations, is the best estimate of the consideration required to settle the related liability, including any related interest charges, and taking into account the risks and uncertainties surrounding the obligation. Glencore assesses its liabilities and contingencies based upon the latest information available, relevant tax laws and other appropriate requirements.

Fair value

In addition to recognising derivative instruments at fair value, as discussed above, an assessment of fair value of assets and liabilities is also required in accounting for other transactions most, notably business combinations and disclosures related to fair values of financial assets and liabilities. In such instances, fair

value measurements are estimated based on the amounts for which the assets and liabilities could be exchanged at the relevant transaction date or reporting period end, and are therefore not necessarily reflective of the likely cashflow upon actual settlements. Where fair value measurements cannot be derived from publicly available information, they are estimated using models and other valuation methods. To the extent possible, the assumptions and inputs used take into account externally verifiable inputs. However, such information is by nature subject to uncertainty, particularly where comparable market-based transactions rarely exist.

SECTION V: CAPITALISATION AND INDEBTEDNESS STATEMENT

The following table shows the capitalisation of Glencore as at 31 December 2010.

	As of 31 December 2010
	(U.S.$ million)
Current debt	
Guaranteed	0
Secured	6,064
Unguaranteed/unsecured	5,505
Subordinated and unsecured	796
Non-current debt	
Guaranteed	0
Secured	0
Unguaranteed/unsecured	17,192
Subordinated and unsecured	1,059
Total debt	30,616
Equity and invested capital	
Share capital	46
Reserves and retained earnings	5,378
Non controlling interests	2,894
Total equity	8,318
Amounts attributable to profit participation shareholders	14,189
Total equity and invested capital	22,507
Total capitalisation	51,123

This statement of capitalisation has been prepared under IFRS using policies that are consistent with those used in preparing Glencore's combined historical financial information for the year ended 31 December 2010.

The following table shows the net indebtedness of Glencore as at 28 February 2011.

	As of 28 February 2011
	(U.S.$ million)
Cash	1,387
Deposits and Treasury Bills	1,605
Trading/Marketable securities	44
Liquidity	3,036
Current bank debt	9,448
Current portion of non-current debt	3,991
Current financial debt	13,439
Net current financial indebtedness	10,403
Non-current bank loans	9,676
Bonds issued	9,586
Other non-current loans	1,149
Non-current financial indebtedness	20,411
Net financial indebtedness	30,814

There is no indirect or contingent indebtedness.

Deloitte.

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4 May 2011

Dear Sirs

Glencore International plc

We report on the financial information relating to Glencore International AG (the "Operating Company") and its subsidiaries (together with the Operating Company, the "Operating Group") set out in Section VI: "Historical Financial Information" of the prospectus dated 4 May 2011 of Glencore International plc (the "Company" and, together with its subsidiaries, the "Group") prepared in connection with the Company's admission to listing on the premium segment of the Official List of the Financial Services Authority and admission to trading on the London Stock Exchange of the ordinary shares of the Company (the "UK Listing") (the "UK Prospectus") and having regard to the waivers granted by the Stock Exchange of Hong Kong Limited (the "HKSE") in connection with the secondary listing of the ordinary shares of the Company on the Main Board of the HKSE (the "HK Listing") (the "HK Prospectus"), (the UK Prospectus and HK Prospectus together being the "Investment Circular"). It is intended that the Company will acquire the entire issued share capital of the Operating Company prior to the implementation of the UK Listing. This financial information has been prepared for inclusion in the

UK Prospectus on the basis of the accounting policies set out in note 1 to the Historical Financial Information. This report is required by Annex I item 20.1 of Commission Regulation (EC) No 809/2004 (the "Prospectus Directive Regulation"), and is given for the purpose of complying with that requirement and for no other purpose.

Responsibilities

The Directors of the Company are responsible for preparing the Historical Financial Information on the basis of preparation set out in Note 1 to the Historical Financial Information and in accordance with the International Financial Reporting Standards (the "IFRS") as issued by the International Accounting Standards Board (the "IASB") and adopted for use in the EU.

It is our responsibility to form an opinion as to whether the Historical Financial Information gives a true and fair view, for the purposes of the UK Prospectus, and to report our opinion to you.

Save for any responsibility arising under Prospectus Rule 5.5.3R(2)(f), Chapter 4 of the Rules Governing the Listing of Securities of the Stock Exchange of Hong Kong Limited (the "HK Listing Rules") and the Companies Ordinance (Cap. 32) of the Laws of Hong Kong (the "Companies Ordinance"), except where waivers have been granted by the HKSE, to any person as and to the extent there provided, to the fullest extent permitted by law, we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in accordance with this report or our statement, required by and given solely for the purposes of complying with Annex I item 23.1 of the Prospectus Directive Regulation, consenting to its inclusion in the Investment Circular.

Our responsibilities in relation to the UK Prospectus relate only to the UK Listing and our responsibilities in relation to the HK Prospectus relate only to the HK Listing.

Basis of opinion

We conducted our work in accordance with the Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. Our work included an assessment of evidence relevant to the amounts and disclosures in the Historical Financial Information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the Historical 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 Historical 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 or other standards and practices generally accepted in jurisdictions outside the United Kingdom, including the United States of America, and accordingly, should not be relied upon as if it had been carried out in accordance with those standards and practices.

In connection with the use of this report in the HK Listing, it should be noted that this report has been provided with regard to the waivers granted by the HKSE.

Opinion

In our opinion, the Historical Financial Information gives, for the purposes of the Investment Circular, a true and fair view of the state of affairs of the Group as at the dates stated and of its profits, cash flows and changes in equity for the periods then ended in accordance with the basis of preparation set out in Note 1 and in accordance with IFRS issued by the IASB and adopted for use in the EU.

Declaration

For the purposes of Prospectus Rule 5.5.3R(2)(f), we are responsible for this report as part of the UK Prospectus and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to

affect its import. This declaration is included in the UK Prospectus in compliance with Annex I item 1.2 and Annex III item 1.2 of the Prospectus Directive Regulation.

Yours faithfully

Deloitte LLP
Chartered Accountants

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 2 New Street Square, London EC4A 3BZ, United Kingdom. Deloitte LLP is the United Kingdom member firm of Deloitte Touche Tohmatsu Limited (''DTTL''), a UK private company limited by guarantee, whose member firms are legally separate and independent entities. Please see www.deloitte.co.uk/about for a detailed description of the legal structure of DTTL and its member firms.

Member of Deloitte Touche Tohmatsu Limited

SUB-SECTION B: HISTORICAL FINANCIAL INFORMATION

Consolidated Statement of Income
For the years ended 31 December 2008, 2009 and 2010

	Notes	2008	2009	2010
			(U.S.$ million)	
Revenue		152,236	106,364	144,978
Cost of goods sold		(147,565)	(103,133)	(140,467)
Selling and administrative expenses		(850)	(839)	(1,063)
Share of income from associates and jointly controlled entities		1,067	82	1,829
(Loss)/gain on sale of investments—net	3	7	33	(6)
Other (expense)/income—net	4	(2,960)	35	(8)
Dividend income		238	12	13
Interest income		298	267	281
Interest expense		(1,135)	(854)	(1,217)
Income before income taxes and attribution		**1,336**	**1,967**	**4,340**
Income tax expense	5	(268)	(238)	(234)
Income before attribution		**1,068**	**1,729**	**4,106**
Attribution to profit participation shareholders	14	(677)	(650)	(2,460)
Income for the year		**391**	**1,079**	**1,646**
Attributable to:				
Equity holders		367	983	1,291
Non-controlling interests		24	96	355

The accompanying Notes are an integral part of the Historical Financial Information.

Consolidated Statement of Comprehensive Income
For the years ended 31 December 2008, 2009 and 2010

	2008	2009	2010
	(U.S.$ million)		
Income for the year	**391**	**1,079**	**1,646**
Exchange (loss)/gain on translation of foreign operations	(41)	37	26
(Loss)/gain on cash flow hedges	(309)	293	(182)
Gain on available for sale financial instruments	0	0	25
Share of comprehensive (loss)/income from associates and jointly controlled entities	(229)	175	(43)
Income tax relating to components of other comprehensive income	1	(7)	2
Net (loss)/income recognised directly in equity	(578)	498	(172)
Cash flow hedges transferred to the statement of income, net of tax	66	82	6
Other comprehensive (loss)/income	(512)	580	(166)
Total comprehensive (loss)/income	(121)	1,659	1,480
Attributable to:			
Equity holders	(145)	1,563	1,107
Non-controlling interests	24	96	373

The accompanying Notes are an integral part of the Historical Financial Information.

Consolidated Statement of Financial Position
As at 31 December 2008, 2009 and 2010

	Notes	2008	2009	2010
		(U.S.$ million)		
Assets				
Non-current assets				
Property, plant and equipment	6	6,859	6,845	12,088
Investments in associates and jointly controlled entities	7	13,221	14,881	16,766
Other investments	7	2,808	3,202	2,438
Advances and loans	8	1,826	2,535	3,830
Deferred tax assets	5	89	88	369
		24,803	27,551	35,491
Current assets				
Inventories	9	7,805	15,073	17,393
Accounts receivable	10	13,956	15,189	18,994
Other financial assets	11	13,762	6,125	5,982
Prepaid expenses and other assets		46	54	118
Marketable securities		113	75	66
Cash and cash equivalents	12	826	860	1,463
Assets held for sale	13	0	1,349	280
		36,508	38,725	44,296
Total assets		61,311	66,276	79,787
Equity and liabilities				
Invested capital				
Share capital	14	46	46	46
Reserves and retained earnings		2,755	4,395	5,378
Non-controlling interests		906	1,258	2,894
		3,707	5,699	8,318
Amounts attributed to profit participation shareholders	14	12,604	12,245	14,189
Invested capital		16,311	17,944	22,507
Other non-current liabilities				
Borrowings	15	13,071	16,403	18,251
Deferred income	16	191	177	164
Deferred tax liabilities	5	630	626	1,308
Provisions	17	402	545	719
		14,294	17,751	20,442
Current liabilities				
Borrowings	15	5,245	7,186	11,881
Commodities sold with agreements to repurchase	9	0	477	484
Prodeco call option arrangement	4	0	2,303	0
Accounts payable	19	11,614	11,482	16,145
Other financial liabilities	20	13,591	8,643	8,066
Income tax payable		256	254	217
Liabilities held for sale	13	0	236	45
		30,706	30,581	36,838
Total equity and liabilities		61,311	66,276	79,787

The accompanying Notes are an integral part of the Historical Financial Information.

Consolidated Statement of Cash Flows
For the years ended 31 December 2008, 2009 and 2010

	Notes	2008	2009	2010
		(U.S.$ million)		
Operating activities				
Income before income taxes and attribution		1,336	1,967	4,340
Adjustments for:				
Depreciation and amortisation		575	622	1,026
Share of income from associates and jointly controlled entities		(1,067)	(82)	(1,829)
Increase/(decrease) in non-current provisions		(112)	42	11
(Loss)/gain on sale of investments—net		(7)	(33)	6
Unrealised mark to market movements on other investments		182	(222)	178
Impairments and other non-cash items—net		2,843	214	(434)
Interest expense—net		837	587	936
Cash generated by operating activities before working capital changes		4,587	3,095	4,234
Working capital changes				
Decrease in marketable securities		131	38	28
(Increase)/decrease in accounts receivable[1]		(5,353)	6,729	(4,170)
(Increase)/decrease in inventories		4,318	(7,334)	(1,724)
Increase/(decrease) in accounts payable[2]		3,464	(4,712)	2,868
Total working capital changes		2,560	(5,279)	(2,998)
Income tax paid		(486)	(217)	(323)
Interest received		353	218	229
Interest paid		(1,054)	(827)	(1,031)
Net cash generated/(used) by operating activities after working capital and net interest and income tax payments		5,960	(3,010)	111
Investing activities				
Payments of non-current advances and loans		(350)	(624)	(825)
Acquisition of subsidiaries	21	(99)	(27)	(624)
Disposal of subsidiaries	21	0	136	0
Purchase of investments		(1,278)	(251)	(191)
Xstrata rights issue settlement via exercise of Prodeco call option	4	0	0	(2,000)
Purchase of property, plant and equipment		(1,823)	(1,088)	(1,657)
Payments for exploration and evaluation		(52)	(28)	(233)
Proceeds from sale of property, plant and equipment		47	85	420
Proceeds from sale of investments		291	569	131
Return of capital		83	0	0
Dividends received from associates		231	64	224
Net cash (used) by investing activities		(2,950)	(1,164)	(4,755)

Notes:

(1) Includes movements in other financial assets and prepaid expenses and other assets.

(2) Includes movements in other financial liabilities.

The accompanying Notes are an integral part of the Historical Financial Information.

Consolidated Statement of Cash Flows
For the years ended 31 December 2008, 2009 and 2010 (Continued)

	Notes	2008	2009	2010
			(U.S.$ million)	
Financing activities				
Proceeds from issuance/(repurchase) of Euro, Swiss Franc and Sterling bonds		1,183	(90)	2,317
Proceeds from Perpetual bonds net of repurchases of U.S.$20 million (2009: U.S.$ nil million)		0	0	327
Proceeds from Convertible bonds		0	1,915	283
Proceeds from other non-current borrowings		317	40	776
Repayment of other non-current borrowings		0	0	(413)
Net proceeds from/(repayment of) current borrowings		(1,867)	2,495	2,945
Proceeds from/(repayment of) Xstrata secured bank loans		(1,060)	642	0
Acquisition of additional interest in subsidiaries		0	0	(75)
Payment of profit participation certificates		(799)	(792)	(883)
Repayment of exchangeable bonds		(591)	0	0
Return of capital to non-controlling interests		(23)	0	(28)
Dividend		(2)	(2)	(2)
Net cash generated/(used) by financing activities		(2,842)	4,208	5,247
Increase in cash and cash equivalents		168	34	603
Cash and cash equivalents, beginning of year		658	826	860
Cash and cash equivalents, end of year		826	860	1,463

The accompanying Notes are an integral part of the Historical Financial Information.

Consolidated Statement of Changes in Equity
For the years ended 31 December 2008, 2009 and 2010

	Retained earnings	Reserves[1]	Reserves and retained earnings	Share capital	Total equity attributable to equity holders	Non-controlling interests	Total equity
Balance 1 January 2008	3,120	(219)	2,901	46	2,947	900	3,847
Income for the year	367	0	367	0	367	24	391
Other comprehensive (loss)	(229)	(283)	(512)	0	(512)	0	(512)
Dividend[2]	(2)	0	(2)	0	(2)	(23)	(25)
Other	(1)	2	1	0	1	5	6
Balance 31 December 2008	3,255	(500)	2,755	46	2,801	906	3,707
Balance 1 January 2009	3,255	(500)	2,755	46	2,801	906	3,707
Income for the year	983	0	983	0	983	96	1,079
Other comprehensive income	175	405	580	0	580	0	580
Dividend[2]	(2)	0	(2)	0	(2)	0	(2)
Acquisition of subsidiaries	0	0	0	0	0	256	256
Equity portion of convertible bonds	0	77	77	0	77	0	77
Other	2	0	2	0	2	0	2
Balance 31 December 2009	4,413	(18)	4,395	46	4,441	1,258	5,699
Balance 1 January 2010	4,413	(18)	4,395	46	4,441	1,258	5,699
Income for the year	1,291	0	1,291	0	1,291	355	1,646
Other comprehensive (loss)/income	(43)	(141)	(184)	0	(184)	18	(166)
Dividend[2]	(2)	0	(2)	0	(2)	0	(2)
Return of capital to non-controlling interests	0	0	0	0	0	(28)	(28)
Change in ownership interest in subsidiaries	0	(134)	(134)	0	(134)	59	(75)
Acquisition of subsidiaries	0	0	0	0	0	1,232	1,232
Equity portion of convertible bonds	0	12	12	0	12	0	12
Balance 31 December 2010	5,659	(281)	5,378	46	5,424	2,894	8,318

Notes:

(1) See Note 14.

(2) During 2010, a dividend of U.S.$13.33 per share (2009 and 2008: U.S.$13.33) was declared and paid.

The accompanying Notes are an integral part of the Historical Financial Information.

NOTES TO THE HISTORICAL FINANCIAL INFORMATION

1 Basis of Preparation and Accounting Policies

Basis of preparation

The Historical Financial Information presents the consolidated financial results, cash flows and financial position of Glencore International AG (the "Company") and its subsidiaries (together "Glencore", the "Group") for the three years ended 31 December 2010, prepared in accordance with the accounting policies set out below. It excludes the current shareholder parent entities of the Company, being Glencore Holding AG and Glencore LTE AG (the "Parents"), the operations, assets and liabilities of which are limited solely to their holdings of shares in the Company and are therefore considered immaterial to the presentation of the Historical Financial Information. The operations, assets and liabilities of Glencore International plc, the entity that will be inserted as the new holding company and ultimate parent entity of the Group on completion of the transaction, are not taken into account in the Historical Financial Information.

The Historical Financial Information is prepared under the historical cost convention, except for the revaluation to fair value of certain financial assets, liabilities and marketing inventories. All amounts are expressed in millions of U.S. dollars, unless otherwise stated, consistent with the predominant functional currency of Glencore's operations.

The accounting policies adopted are in accordance with International Financial Reporting Standards (the "IFRS") issued by the International Accounting Standards Board (the "IASB") and interpretations of the International Financial Reporting Interpretations Committee ("IFRIC") and as adopted by the EU, effective for Glencore's reporting for the year ended 31 December 2010.

Changes in accounting policies and comparability

Glencore has adopted all of the new and revised standards and interpretations issued by the IASB and IFRIC and as adopted by the EU that are relevant to its operations and effective for accounting periods beginning on 1 January 2010 and that are expected to be applied for the accounting period beginning on 1 January 2011. In addition, Glencore adopted IFRS 8 "Operating Segments" which requires disclosure of certain information relating to Glencore's operating segments pending the filing of its financial statements with a securities commission for the purpose of issuing shares to the public. The adoption of these new and revised standards and interpretations did not have a material impact on the recognition and measurement of reported amounts. Glencore early adopted the requirements of IFRS 3 (Revised) "Business Combinations" and Amendments to IAS 27 "Consolidated and Separate Financial Statements" and consequently there were no significant changes in accounting policies in 2010, other than disclosures and presentation standards.

At the date of authorisation of the Historical Financial Information, the following standards and interpretations applicable to Glencore were issued but not yet effective:

IFRS 9 Financial Instruments (as amended in 2010)

IAS 24 Related Party Disclosures (revised 2009)

IFRIC 19 Extinguishing Financial Liabilities with Equity Instruments

Amendment to IFRS 3 (2008)—Business Combinations

Amendment to IFRS 7—Transfers of Financial Assets

Amendment to IAS 32—Classification of Rights Issues

Amendment to IFRIC 13—Customer Loyalty Programmes

Amendment to IFRIC 14—IAS 19: The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction—November 2009 Amendment with respect to Voluntary Prepaid Contributions

Amendment to IAS 12—Income Taxes: Recovery of Underlying Assets

The Directors anticipate that the adoption of these standards and interpretations in future periods will not have a material impact on the financial information of Glencore, other than additional note disclosures.

Principles of consolidation

The consolidated Historical Financial Information of Glencore includes the accounts of Glencore International AG, a Swiss domiciled company with its registered office at Baarermattstrasse 3, CH-6341 Baar, (the "Company and parent entity") and its subsidiaries. A subsidiary is an entity that is ultimately controlled by the Company. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. Control is usually assumed where Glencore ultimately owns or controls more than 50 per cent. of the voting rights, unless evidence exists to the contrary. The results of subsidiaries acquired or disposed of during the year are consolidated from the effective date of acquisition or up to the effective date of disposal, as appropriate. All intercompany balances, transactions and unrealised profits are eliminated.

Non-controlling interests in subsidiaries are identified separately from Glencore's equity and are initially measured either at fair value or at the non-controlling interests' proportionate share of the fair value of the acquiree's identifiable net assets. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in Glencore's interests in subsidiaries that do not result in a loss of control are accounted for as equity transactions with any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received being recognised directly in equity and attributed to owners of Glencore.

Investments in associates, jointly controlled entities and joint venture operations

Associates and jointly controlled entities (together "Associates") in which Glencore exercises significant influence or joint control are accounted for using the equity method. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control over those policies. Significant influence is presumed if Glencore holds between 20 per cent. and 50 per cent. of the voting rights, unless evidence exists to the contrary. Joint control is the contractually agreed sharing of control over an economic entity where strategic and operating decisions require unanimous decision making.

Equity accounting involves Glencore recording its share of the Associate's net income and equity. Glencore's interest in an Associate is initially recorded at cost and is subsequently adjusted for Glencore's share of changes in net assets of the Associate, less any impairment in the value of individual investments. Where Glencore transacts with an Associate, unrealised profits and losses are eliminated to the extent of Glencore's interest in that Associate.

Changes in Glencore's interests in Associates are accounted for as a gain or loss on disposal with any difference between the amount by which the carrying value of the Associate is adjusted and the fair value of the consideration received being recognised directly in the statement of income.

Where Glencore undertakes activities under joint venture operation or asset arrangements, Glencore reports such interests using the proportionate consolidation method. Glencore's share of the assets, liabilities, income, expenses and cash flows of jointly controlled operations or asset arrangements are consolidated with the equivalent items in the Historical Financial Information on a line-by-line basis.

Business combinations

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method of accounting, whereby the identifiable assets, liabilities and contingent liabilities (identifiable net assets) are measured on the basis of fair value at the date of acquisition. Acquisition-related costs are recognised in the statement of income as incurred.

Where a business combination is achieved in stages, Glencore's previously held interests in the acquired entity are remeasured to fair value at the acquisition date (i.e. the date Glencore attains control) and the resulting gain or loss, if any, is recognised in the statement of income.

Where the fair value of consideration transferred for a business combination exceeds the fair values attributable to Glencore's share of the identifiable net assets, the difference is treated as purchased goodwill, which is not amortised, but is reviewed annually for impairment and when there is an indication of impairment. Any impairment identified is immediately recognised in the statement of income. If the fair

value attributable to Glencore's share of the identifiable net assets exceeds the consideration transferred, the difference is immediately recognised in the statement of income.

Similar procedures are applied in accounting for the purchases of interests in Associates. Any goodwill arising from such purchases is included within the carrying amount of the investment in Associates, but not amortised thereafter. Any excess of Glencore's share of the net fair value of the Associate's identifiable net assets over the cost of the investment is included in the statement of income in the period of the purchase.

The main operating and finance subsidiaries and industrial investments of Glencore are listed in Note 28.

Non-current assets held for sale and disposal groups

Non-current assets and assets and liabilities included in disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use, they are available for immediate disposal and the sale is highly probable. Non-current assets held for sale are measured at the lower of their carrying amount or fair value less costs to sell.

Revenue recognition

Revenue is recognised when the seller has transferred to the buyer all significant risks and rewards of ownership of the assets sold. Revenue excludes any applicable sales taxes and is recognised at the fair value of the consideration received or receivable to the extent that it is probable that economic benefits will flow to Glencore and the revenues and costs can be reliably measured. In most instances, sales revenue is recognised when the product is delivered to the destination specified by the customer, which is typically the vessel on which it is shipped, the destination port or the customer's premises.

For certain commodities, the sales price is determined on a provisional basis at the date of sale, as the final selling price is subject to movements in market prices up to the date of final pricing, normally ranging from 30 to 180 days after initial booking. Revenue on provisionally priced sales is recognised based on the estimated fair value of the total consideration receivable. The revenue adjustment mechanism embedded within provisionally priced sales arrangements has the character of a commodity derivative. Accordingly, the fair value of the final sales price adjustment is re-estimated continuously and changes in fair value are recognised as an adjustment to revenue. In all cases, fair value is estimated by reference to forward market prices.

Interest and dividend income is recognised when the right to receive payment has been established; it is probable that the economic benefits will flow to Glencore and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the applicable effective interest rate.

Foreign currency translation

Glencore's reporting currency and the functional currency of the majority of its operations is the U.S. dollar as this is assessed to be the principal currency of the economic environment in which they operate.

Foreign currency transactions

Transactions in foreign currencies are converted into the functional currency of each entity using the exchange rate prevailing at the transaction date. Monetary assets and liabilities outstanding at year end are converted at year-end rates. The resulting exchange differences are recorded in the consolidated statement of income.

Translation of financial information

For the purposes of consolidation, assets and liabilities of group companies whose functional currency is in a currency other than the U.S. dollar are translated into U.S. dollars using year-end exchange rates, while their statements of income are translated using average rates of exchange for the year. Goodwill and fair value adjustments arising from the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and are translated at the closing rate. Translation adjustments are included as a separate component of shareholders' equity and have no statement of income impact to the extent that no disposal of the foreign operation has occurred.

Securitisations

Glencore may obtain sources of liquidity by securitising certain of its receivables which generally result in the legal sale of these assets to special purpose entities (the "SPEs") which, in turn, issue securities to investors. After securitisation, Glencore continues to maintain customer relationships and provide servicing for the receivables transferred to the SPEs.

In accounting for such securitisations, two key accounting determinations are made:

An evaluation is made as to whether the securitisation entity should be considered a subsidiary of Glencore and be included in Glencore's consolidated financial information or whether the entity is sufficiently independent that it does not need to be consolidated. For all securitisations in which Glencore participates, an evaluation is made of whether Glencore controls the entity.

Where the securitisation entity is not considered a subsidiary, an evaluation is then made as to whether Glencore has transferred the rights to the cash flows, risks and rewards of ownership and control of the underlying assets, thus qualifying it for derecognition and a sale under IFRS. If a transfer of assets meets the derecognition and sale requirements, the assets are removed from Glencore's consolidated financial information. If the conditions for derecognition and sale are not met, the transfer is considered to be a secured borrowing, the assets remain in the consolidated financial information and the proceeds are recognised as a liability.

Repurchase agreements

Glencore enters into repurchase transactions where it sells certain marketing inventories, but retains all or a significant portion of the risks and rewards relating to the transferred inventory. Repurchase transactions are treated as collateralised borrowings, whereby the inventories are not derecognised from the statement of financial position and the cash received is recorded as a corresponding obligation within the statement of financial position as "commodities sold with agreements to repurchase" or, if the repurchase obligation is optional, within "trade advances from buyers".

Borrowing costs

Borrowing costs are generally expensed as incurred, except where they relate to the financing of construction or development of qualifying assets, in which case they are capitalised up to the date when the qualifying asset is ready for its intended use.

Retirement benefits

Glencore operates various pension schemes in accordance with local requirements and practices of the respective countries. The annual costs for defined contribution plans that are funded by payments to separate trustee administered funds or insurance companies equal the contributions that are required under the plans and are accounted for as an expense. Glencore uses the projected unit credit actuarial method to determine the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost. Actuarial gains and losses are recognised in the statement of income over the average remaining service lives of employees. Past service cost is recognised immediately to the extent that the benefits are already vested, and otherwise is amortised on a straight-line basis over the average period until the benefits become vested.

Income taxes

Income taxes consist of current and deferred income taxes. Current taxes represent income taxes expected to be payable based on enacted or substantively enacted tax rates at the period end and expected current taxable income, and any adjustment to tax payable in respect of previous years. Deferred taxes are recognised for temporary differences between the carrying amounts of assets and liabilities in the financial information and the corresponding tax bases used in the computation of taxable profit, using enacted or substantively enacted income tax rates. Deferred tax assets and unused tax losses are only recognised to the extent that their recoverability is probable. Deferred tax assets are reviewed at each reporting period end and amended to the extent that it is no longer probable that the related benefit will be realised. To the extent that a deferred tax asset not previously recognised fulfils the criteria for recognition, an asset is recognised. Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same authority and Glencore has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis. The tax effect of certain temporary differences is not recognised

principally with respect to the initial recognition of an asset or liability (other than those arising in a business combination or in a manner that initially impacted accounting or taxable profit) and temporary differences relating to investments in subsidiaries and associates to the extent that Glencore can control the timing of the reversal of the temporary difference and it is probable the temporary difference will not reverse in the foreseeable future. Deferred tax is provided in respect of fair value adjustments on acquisitions. These adjustments may relate to assets such as extraction rights that, in general, are not eligible for income tax allowances.

Royalties, extraction taxes and other levies/taxes are treated as taxation arrangements when they have the characteristics of an income tax, including being imposed and determined in accordance with regulations established by the respective government's taxation authority.

Current and deferred tax are recognised as an expense or income in the statement of income, except when they relate to items that are recognised outside the statement of income (whether in other comprehensive income or directly in equity) or where they arise from the initial accounting for a business combination.

Exploration and evaluation expenditure

Exploration and evaluation expenditure relates to costs incurred on the exploration and evaluation of potential mineral and petroleum resources and includes costs such as researching and analysing historical exploration data, exploratory drilling, trenching, sampling and the costs of pre-feasibility studies. Exploration and evaluation expenditure for each area of interest, other than that acquired from the purchase of another company, is charged to the statement of income as incurred, except when the expenditure will be recouped from future exploitation or sale of the area of interest and it is planned to continue with active and significant operations in relation to the area, or at the reporting period end, the activity has not reached a stage which permits a reasonable assessment of the existence of commercially recoverable reserves, in which case the expenditure is capitalised. Purchased exploration and evaluation assets are recognised at their fair value at acquisition if purchased as part of a business combination.

Capitalised exploration and evaluation expenditure is recorded as a component of mineral and petroleum rights in property, plant and equipment.

All capitalised exploration and evaluation expenditure is monitored for indications of impairment. Where a potential impairment is indicated, an assessment is performed for each area of interest or at the cash generating unit level. To the extent that capitalised expenditure is not expected to be recovered, it is charged to the statement of income.

Development expenditure

When commercially recoverable reserves are determined and such development receives the appropriate approvals, capitalised exploration and evaluation expenditure is transferred to construction in progress. Upon completion of development and commencement of production, capitalised development costs are transferred to deferred mining costs and depreciated using the unit of production method.

Property, plant and equipment

Property, plant and equipment are stated at cost, being the fair value of the consideration given to acquire or construct the asset, including directly attributable costs required to bring the asset to the location or to a condition necessary for operation and the direct cost of dismantling and removing the asset, less accumulated depreciation and any accumulated impairment losses.

Property, plant and equipment is depreciated to its estimated residual value over the estimated useful life of the specific asset concerned, or the estimated remaining life of the associated mine, field or lease, if shorter. Depreciation commences when the asset is available for use.

The major categories of property, plant and equipment are depreciated on a unit of production and/or straight-line basis as follows:

Buildings	10-45 years
Land	not depreciated
Plant and equipment	3-20 years
Mineral rights and development costs	unit of production

Assets under finance leases, where substantially all the risks and rewards of ownership transfer to the Group as lessee, are capitalised and amortised over their expected useful lives on the same basis as owned assets or, where shorter, the term of the relevant lease. All other leases are classified as operating leases, the expenditures for which, are charged against income over the accounting periods covered by the lease term.

Deferred stripping costs

Stripping costs incurred in the development of a mine (or pit) before production commences are capitalised as part of the cost of constructing the mine (or pit) and subsequently amortised over the life of the mine (or pit) on a unit of production basis. Production stripping costs are deferred when the actual stripping ratio incurred significantly exceeds the expected long-term average stripping ratio and are subsequently amortised when the actual stripping ratio falls below the long-term average stripping ratio. Where the ore is expected to be evenly distributed, waste removal is expensed as incurred.

Mineral and petroleum rights

Mineral and petroleum reserves, resources and rights (together "Mineral Rights") which can be reasonably valued, are recognised in the assessment of fair values on acquisition. Mineral Rights for which values cannot be reasonably determined are not recognised. Exploitable Mineral Rights are amortised using the unit of production method over the commercially recoverable reserves.

Restoration, rehabilitation and decommissioning

Restoration, rehabilitation and decommissioning costs arising from the installation of plant and other site preparation work, discounted to their present value, are provided for and capitalised at the time such an obligation arises. The costs are charged to the statement of income over the life of the operation through depreciation of the asset and the unwinding of the discount on the provision.

Costs for restoration of subsequent site disturbance, which is created on an ongoing basis during production, are provided for at their net present values and charged to the statement of income as extraction progresses.

Other investments

Equity investments, other than investments in Associates, are recorded at fair value unless such fair value is not reliably determinable, in which case they are carried at cost. Changes in fair value are recorded in the statement of income unless they are classified as available for sale, in which case fair value movements are recognised in other comprehensive income and are subsequently recognised in the statement of income when realised by sale or redemption, or when a reduction in fair value is judged to be a significant or prolonged decline.

Impairment

Investments in Associates and other investments, advances and loans and property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate the carrying value may not be recoverable. If there are indicators of impairment, a review is undertaken to determine whether the carrying amounts are in excess of their recoverable amounts. An asset's recoverable amount is determined as the higher of its fair value less costs to sell and its value in use. Such reviews are undertaken on an asset-by-asset basis, except where assets do not generate cash flows independent of other assets, in which case the review is undertaken at the cash generating unit level.

Where a cash generating unit, or group of cash generating units, has goodwill allocated to it, or includes intangible assets which are either not available for use or which have an indefinite useful life (and which can only be tested as part of a cash generating unit), an impairment test is performed at least annually or whenever there is an indication that the carrying amounts of such assets may be impaired.

If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recorded in the income statement to reflect the asset at the lower amount.

An impairment loss is reversed in the statement of income if there is a change in the estimates used to determine the recoverable amount since the prior impairment loss was recognised. The carrying amount is increased to the recoverable amount, but not beyond the carrying amount net of depreciation or amortisation which would have arisen if the prior impairment loss had not been recognised. Goodwill impairments and impairments of available for sale equity investments are not reversed.

Provisions

Provisions are recognised when Glencore has a present obligation, as a result of past events, and it is probable that an outflow of resources embodying economic benefits that can be reliably estimated will be required to settle the liability.

Inventories

The majority of marketing inventories are valued at fair value less costs to sell with the remainder valued at the lower of cost or net realisable value. Unrealised gains and losses from changes in fair value are reported in cost of goods sold.

Production inventories are valued at the lower of cost or net realisable value. Cost is determined using the first-in first-out ("FIFO") or the weighted average method and comprises material costs, labour costs and allocated production related overhead costs. Financing and storage costs related to inventory are expensed as incurred.

Financial instruments

Financial assets are classified as either financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments or available for sale financial assets, depending upon the purpose for which the financial assets were acquired. Financial assets are initially recognised at fair value on the trade date, including, in the case of instruments not recorded at fair value through profit or loss, directly attributable transaction costs. Subsequently, financial assets are carried at fair value (other investments, derivatives and marketable securities) or amortised cost less impairment (accounts receivable and advances and loans). Financial liabilities, other than derivatives, are initially recognised at fair value of consideration received net of transaction costs, as appropriate, and subsequently carried at amortised cost.

Convertible bonds

At the date of issue, the fair value of the liability component is determined by discounting the contractual future cash flows using a market rate for a similar non-convertible instrument. The liability component is recorded as a liability on an amortised cost basis using the effective interest method. The equity component is recognised as the difference between the fair value of the proceeds as a whole and the fair value of the liability component and it is not subsequently remeasured.

Derivatives and hedging activities

Derivative instruments, which include contracts to sell or purchase commodities that do not meet the own use exemption, are initially recognised at fair value when Glencore becomes a party to the contractual provisions of the instrument and are subsequently remeasured to fair value at the end of each reporting period. Fair values are determined using quoted market prices, dealer price quotations or using models and other valuation techniques, the key inputs for which include current market and contractual prices for the underlying instrument, time to expiry, yield curves, volatility of the underlying instrument and counterparty risk.

Gains and losses on derivative instruments for which hedge accounting is not applied, other than the revenue adjustment mechanism embedded within provisionally priced sales, are recognised in cost of goods sold.

Those derivatives qualifying and designated as hedges are either (i) a Fair Value Hedge of the change in fair value of a recognised asset or liability or an unrecognised firm commitment, or (ii) a Cash Flow Hedge of the change in cashflows to be received or paid relating to a recognised asset or liability or a highly probable transaction.

A change in the fair value of derivatives designated as a "Fair Value Hedge" is reflected together with the change in the fair value of the hedged item in the statement of income.

A change in the fair value of derivatives designated as "Cash Flow Hedge" is initially recognised as a Cash Flow Hedge reserve in shareholders' equity. The deferred amount is then released to the statement of income in the same periods during which the hedged transaction affects the statement of income. Hedge ineffectiveness is recorded in the statement of income when it occurs.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in shareholders' equity and is recognised in the statement of income when the committed or forecast transaction is ultimately recognised in the statement of income. However, if a forecast or committed transaction is no longer expected to occur, the cumulative gain or loss that was recognised in equity is immediately transferred to the statement of income.

A derivative may be embedded in a "host contract". Such combinations are known as hybrid instruments and, at the date of issuance, the embedded derivative is separated from the host contract and accounted for as a stand-alone derivative if the criteria for separation are met. The host contract is accounted for in accordance with its relevant accounting policy.

Critical accounting policies, key judgements and estimates

The preparation of the Historical Financial Information requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as the disclosure of contingent assets and liabilities at the date of the financial information and the reported amounts of revenues and expenses during the reporting period. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual outcomes could differ from those estimates.

Glencore has identified the following areas as being critical to understanding Glencore's financial position as they require management to make complex and/or subjective judgements and estimates about matters that are inherently uncertain:

Valuation of derivative instruments

Derivative instruments are carried at fair value and Glencore evaluates the quality and reliability of the assumptions and data used to measure fair value in the three hierarchy levels, Level 1, 2 and 3, as prescribed by IFRS 7. Fair values are determined in the following ways: externally verified via comparison to quoted market prices in active markets ("Level 1"); by using models with externally verifiable inputs ("Level 2"); or by using alternative procedures such as comparison to comparable instruments and/or using models with unobservable market inputs requiring Glencore to make market-based assumptions ("Level 3"). For more details, refer to Note 23.

Depreciation and amortisation of mineral and petroleum rights and project development costs

Mineral and petroleum rights and project development costs are amortised using the unit of production method (the "UOP"). The calculation of the UOP rate of amortisation, and therefore the annual amortisation charge to operations, can fluctuate from initial estimates. This could generally result when there are significant changes in any of the factors or assumptions used in estimating mineral or petroleum reserves, notably changes in the geology of the reserves and assumptions used in determining the economic feasibility of the reserves. Such changes in reserves could similarly impact the useful lives of assets depreciated on a straight-line basis, where those lives are limited to the life of the project, which, in turn is, limited to the life of the proven and probable mineral or petroleum reserves. Estimates of proven and probable reserves are prepared by experts in extraction, geology and reserve determination. Assessments of UOP rates against the estimated reserve base and the operating and development plan are performed regularly.

Impairments

Investments in Associates and other investments, advances and loans and property, plant and equipment, goodwill and other intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be fully recoverable or at least annually for goodwill and other indefinite life intangible assets. If an asset's recoverable amount is less than the asset's carrying amount, an impairment loss is recognised. Future cash flow estimates which are used to calculate the asset's fair value are based on expectations about future operations primarily comprising estimates about production and sales volumes, commodity prices, reserves, operating, rehabilitation and restoration costs and capital expenditures. Changes in such estimates could impact recoverable values of these assets. Estimates are reviewed regularly by management.

Restoration, rehabilitation and decommissioning costs

A provision for future restoration, rehabilitation and decommissioning costs requires estimates and assumptions to be made around the relevant regulatory framework, the magnitude of the possible disturbance and the timing, extent and costs of the required closure and rehabilitation activities. To the extent that the actual future costs differ from these estimates, adjustments will be recorded and the statement of income could be impacted. The provisions, including the estimates and assumptions contained therein are reviewed regularly by management.

Provisions

The amount recognised as a provision, including tax, legal, contractual and other exposures or obligations, is the best estimate of the consideration required to settle the related liability, including any related interest charges, taking into account the risks and uncertainties surrounding the obligation. The Group assesses its liabilities and contingencies based upon the best information available, relevant tax laws and other appropriate requirements.

Fair value

In addition to recognising derivative instruments at fair value, as discussed above, an assessment of fair value of assets and liabilities is also required in accounting for other transactions, most notably business combinations and disclosures related to fair values of financial assets and liabilities. In such instances, fair value measurements are estimated based on the amounts for which the assets and liabilities could be exchanged at the relevant transaction date or reporting period end, and are therefore not necessarily reflective of the likely cashflow upon actual settlements. Where fair value measurements cannot be derived from publicly available information, they are estimated using models and other valuation methods. To the extent possible, the assumptions and inputs used take into account externally verifiable inputs. However, such information is by nature subject to uncertainty, particularly where comparable market-based transactions rarely exist.

2 Segment Information

Glencore is organised and operates on a worldwide basis in three core business segments—metals and minerals, energy products and agricultural products, with each business segment responsible for the marketing, sourcing, hedging, logistics and industrial investment activities of their respective markets and reflecting the structure used by Glencore's management to assess the performance of Glencore.

The business segments' contributions to the Group are primarily derived from the net margin or premium earned from physical marketing activities (net sale and purchase of physical commodities), provision of marketing and related value added services and the margin earned from industrial asset activities (net resulting from the sale of physical commodities over the cost of production and/or other cost of sales) and comprise the following underlying key commodities:

- Metals and minerals: Zinc, copper, lead, alumina, aluminium, ferro alloys, nickel, cobalt and iron ore, including smelting, refining, mining, processing and storage-related operations of the relevant commodities.
- Energy products: Crude oil, oil products, steam coal and metallurgical coal supported by investments in coal mining and oil production operations, ports, vessels and storage facilities.
- Agriculture products: Wheat, corn, barley, rice, oilseeds, meals, edible oils, biodiesel, cotton and sugar supported by investments in storage, handling, processing and port facilities.
- Corporate and other: Statement of income amounts represent Glencore's share of income related to Xstrata and other unallocated Group related expenses (mainly variable pool bonus accrual). Balance sheet amounts represent Group related balances.

The financial performance of the segments is principally evaluated with reference to Adjusted EBIT/EBITDA which is the net result of revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and jointly controlled entities and dividends as disclosed on the face of the consolidated statement of income. Furthermore, given that funding costs in relation to working capital employed in the marketing activities are sought to be "recovered" via transactional terms, the performance of marketing activities is also assessed at a net income level.

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies. Glencore accounts for inter-segment sales and transfers as if the sales or transfers were to third parties, i.e. at current market prices. Exceptional items represent significant items of income and expense which, due to their financial impact, nature or the expected infrequency of the events giving rise to them, have been separated for internal reporting and analysis of Glencore's results.

2008	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Revenue					
Revenue from third parties	40,685	98,157	13,394	0	152,236
Marketing activities					
Adjusted EBIT	776	1,609	579	(103)	2,861
Exceptional items included above[1]	341	0	0	0	341
Adjusted EBIT pre-exceptional items	1,117	1,609	579	(103)	3,202
Depreciation and amortisation	0	0	0	13	13
Adjusted EBITDA pre-exceptional items	1,117	1,609	579	(90)	3,215
Industrial activities					
Adjusted EBIT	497	522	99	1,147	2,265
Exceptional items included above[1]	356	0	0	389	745
Adjusted EBIT pre-exceptional items	853	522	99	1,536	3,010
Depreciation and amortisation	441	110	11	0	562
Adjusted EBITDA pre-exceptional items	1,294	632	110	1,536	3,572
Total Adjusted EBITDA pre-exceptional items	2,411	2,241	689	1,446	6,787
Depreciation and amortisation excluded above	(441)	(110)	(11)	(13)	(575)
Total Adjusted EBIT pre-exceptional items	1,970	2,131	678	1,433	6,212
Exceptional items excluded above					(1,086)
Interest expense—net					(837)
(Loss)/gain on sale of investments—net					7
Other (expense)/income/—net					(2,960)
Income tax expense					(268)
Income before attribution					1,068

Note:

(1) U.S.$341 million of marketing activities exceptional items related primarily to inventory net realisable value adjustments and U.S.$745 million of industrial activities exceptional items related primarily to U.S.$330 million of inventory net realisable value adjustments, severance and other related expenses and Glencore's share of asset impairment charges booked directly by Xstrata (U.S.$415 million).

2008	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Current assets	16,257	14,746	2,315	2,251	35,569
Current liabilities	(10,538)	(10,900)	(1,331)	(2,692)	(25,461)
Allocatable current capital employed	5,719	3,846	984	(441)	10,108
Property, plant and equipment	4,859	1,587	413	0	6,859
Investments in Associates and other investments	2,421	1,453	95	12,060	16,029
Non-current advances and loans	494	1,243	25	64	1,826
Allocatable non-current capital employed	7,774	4,283	533	12,124	24,714
Other assets[1]	0	0	0	1,028	1,028
Other liabilities[2]	0	0	0	(19,539)	(19,539)
Total net assets	13,493	8,129	1,517	(6,828)	16,311
Included in property, plant and equipment are:					
Additions	1,062	698	102	13	1,875

Notes:

(1) Other assets include deferred tax assets, cash and cash equivalents, marketable securities and assets held for sale.

(2) Other liabilities include borrowings, deferred income, deferred tax liabilities, provisions and commodities sold with agreements to repurchase.

2009	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Revenue					
Revenue from third parties	35,391	62,391	8,582	0	106,364
Marketing activities					
Adjusted EBIT	523	945	304	(211)	1,561
Exceptional items included above[1]	30	0	0	0	30
Adjusted EBIT pre-exceptional items	553	945	304	(211)	1,591
Depreciation and amortisation	0	0	0	15	15
Adjusted EBITDA pre-exceptional items	553	945	304	(196)	1,606
Industrial activities					
Adjusted EBIT	443	413	41	28	925
Exceptional items included above[1]	55	0	0	736	791
Adjusted EBIT pre-exceptional items	498	413	41	764	1,716
Depreciation and amortisation	521	49	37	0	607
Adjusted EBITDA pre-exceptional items	1,019	462	78	764	2,323
Total Adjusted EBITDA pre-exceptional items	1,572	1,407	382	568	3,929
Depreciation and amortisation excluded above	(521)	(49)	(37)	(15)	(622)
Total Adjusted EBIT pre-exceptional items	1,051	1,358	345	553	3,307
Exceptional items excluded above					(821)
Interest expense—net					(587)
(Loss)/gain on sale of investments—net					33
Other (expense)/income—net					35
Income tax expense					(238)
Income before attribution					1,729

Note:

(1) U.S.$30 million of marketing activities exceptional items related primarily to inventory net realisable value adjustments and $791 million of industrial activities exceptional items related to severance and other related expenses (U.S.$30 million) and Glencore's share of asset impairment charges booked directly by Xstrata (U.S.$736 million) and Century (U.S.$25 million).

2009	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Current assets	18,244	13,860	2,294	2,043	36,441
Current liabilities	(9,759)	(6,844)	(882)	(2,894)	(20,379)
Allocatable current capital employed	8,485	7,016	1,412	(851)	16,062
Property, plant and equipment	5,672	679	494	0	6,845
Investments in Associates and other investments	2,129	924	41	14,989	18,083
Non-current advances and loans	1,054	1,382	34	65	2,535
Allocatable non-current capital employed	8,855	2,985	569	15,054	27,463
Other assets[1]	0	0	0	2,372	2,372
Other liabilities[2]	0	0	0	(27,953)	(27,953)
Total net assets	17,340	10,001	1,981	(11,378)	17,944
Included in property, plant and equipment are:					
Additions	607	393	116	0	1,116

Notes:

(1) Other assets include deferred tax assets, cash and cash equivalents, marketable securities and assets held for sale.

(2) Other liabilities include borrowings, deferred income, deferred tax liabilities, provisions, commodities sold with agreements to repurchase, Prodeco call option arrangement and liabilities held for sale.

2010	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Revenue					
Revenue from third parties	45,211	89,349	10,418	0	144,978
Marketing activities					
Adjusted EBIT	1,401	450	659	(173)	2,337
Depreciation and amortisation	0	20	0	10	30
Adjusted EBITDA pre-exceptional items	1,401	470	659	(163)	2,367
Industrial activities					
Adjusted EBIT	1,160	235	58	1,500	2,953
Depreciation and amortisation	708	124	49	0	881
Adjusted EBITDA pre-exceptional items	1,868	359	107	1,500	3,834
Total Adjusted EBITDA pre-exceptional items	3,269	829	766	1,337	6,201
Depreciation and amortisation excluded above	(708)	(144)	(49)	(10)	(911)
Total Adjusted EBIT pre-exceptional items	2,561	685	717	1,327	5,290
Interest expense—net					(936)
(Loss)/gain on sale of investments—net					(6)
Other (expense)/income—net					(8)
Income tax expense					(234)
Income before attribution					4,106

2010	Metals and Minerals	Energy Products	Agricultural Products	Corporate and other	Total
			(U.S.$ million)		
Current assets	17,901	15,759	5,958	2,869	42,487
Current liabilities	(8,597)	(11,237)	(2,000)	(2,594)	(24,428)
Allocatable current capital employed	9,304	4,522	3,958	275	18,059
Property, plant and equipment	8,860	2,489	739	0	12,088
Investments in Associates and other investments	2,134	1,108	157	15,805	19,204
Non-current advances and loans	813	2,832	113	72	3,830
Allocatable non-current capital employed	11,807	6,429	1,009	15,877	35,122
Other assets[1]	0	0	0	2,178	2,178
Other liabilities[2]	0	0	0	(32,852)	(32,852)
Total net assets	21,111	10,951	4,967	(14,522)	22,507
Included in property, plant and equipment are:					
Additions	1,001	818	71	0	1,890

Notes:

(1) Other assets include deferred tax assets, cash and cash equivalents, marketable securities and assets held for sale.

(2) Other liabilities include borrowings, deferred income, deferred tax liabilities, provisions, commodities sold with agreements to repurchase and liabilities held for sale.

Geographical information

	2008	2009	2010
		(U.S.$ million)	
Revenue from third parties[1]			
The Americas	41,262	27,736	39,183
Europe	61,056	37,647	47,724
Asia	31,553	31,081	42,820
Africa	16,913	9,089	13,975
Oceania	1,452	811	1,276
	152,236	106,364	144,978
Non-Current assets[2]			
The Americas	4,120	2,554	3,755
Europe	10,911	12,858	15,224
Asia	2,506	2,730	5,880
Africa	1,221	2,252	2,702
Oceania	1,322	1,332	1,293
	20,080	21,726	28,854

Notes:

(1) Revenue by geographical destination is based on the country of incorporation of the sales counterparty.

(2) Non-current assets are non-current operating assets other than financial instruments and deferred tax assets.

3 (Loss)/Gain on Sale of Investments

	2008	2009	2010
		(U.S.$ million)	
Gain on sale of subsidiaries	7	97	0
Loss on sale of investments in associates	0	(64)	(6)
Total	7	33	(6)

The net gain on sale of subsidiaries and investments in 2009 comprised primarily a gain of U.S.$97 million relating to the disposal of East Tennessee Zinc Company LLC in December 2009 (see Note 21) and a gain on the disposal of Refineria de Cartagena S.A. (see Note 7), offset by a dilution loss following Xstrata's

capital raising in March 2009, which resulted in Glencore's effective ownership reducing from 35.2 per cent. to 34.9 per cent.

4 Other (Expense)/Income—Net

	Notes	2008	2009	2010
		(U.S.$ million)		
Changes in mark to market valuation—net[1]		(137)	222	(178)
Impairment[2]		(2,763)	0	(336)
Prodeco transaction and related expenses[3]	13	0	(303)	(225)
Changes in mark to market valuation of forward contracts[4]		0	0	(790)
Gain on settlement of restructured Russneft loans	8	0	0	382
Impairment reversal[5]		0	0	674
Revaluation of previously held interest in newly acquired businesses	21	0	161	462
Impairment on Katanga related goodwill	21	0	(161)	0
Foreign exchange gain/(loss)		(80)	26	31
Other		20	90	(28)
Total		(2,960)	35	(8)

In addition to foreign exchange gains/(losses) and mark to market movements on investments held for trading, other (expense)/income—net includes significant items of income and expense which due to their non-operational nature or expected infrequency of the events giving rise to them are reported separately from operating segment results. Other (expense)/income—net includes, but is not limited to, impairment charges/reversals, gains/losses on restructured loans, revaluation of previously held interests in business combinations and restructuring and closure costs.

Notes:

(1) Changes in mark to market valuation—net primarily relates to movements on interests in other investments classified as held for trading and carried at fair value, with Glencore's stake in Volcan Compania Minera S.A.A. accounting for the majority of the movement in 2010 and 2009.

(2) In 2010, an impairment was recognised following the Russneft debt amendment and restatement (see Note 8). In 2008, the rapid and severe impacts arising from the global financial crisis in the latter part of that year, resulting in a substantial fall in commodity prices, increased uncertainty in the credit markets and an increase in political risk, led to the deferral of a number of expansion projects, cutbacks in production output and mine closures, leading to impairments to the carrying value of property, plant and equipment (U.S.$97 million), investments in Associates (U.S.$1,883 million), other investments (U.S.$500 million), non-current loans (U.S.$217 million) and other current assets (U.S.$66 million). The recoverable amounts were determined on the basis of the assets' fair value less cost to sell, determined using discounted cash flow techniques which incorporated discount rates commensurate with the nature of the underlying forecast cash flows ranging from 6.4 per cent. to 12.5 per cent.

(3) In March 2009, Xstrata acquired Glencore's Colombian Coal Group ("Prodeco") for U.S.$2 billion and concurrently granted Glencore an option to repurchase Prodeco within 12 months for U.S.$2.25 billion plus profits accrued during the option period and the net balance of any cash invested. Given the fixed price repurchase option, the conditions for derecognition/disposal of Prodeco were not met under IFRS and, as a consequence, Prodeco's operations remained in the consolidated financial statements, while the "proceeds" were deferred and recognised as a liability. In March 2010, the option was exercised (see Note 13). Following the exercise of the option, in addition to the option repurchase expenses (including the option premium and profit entitlement) incurred during the year, U.S.$115 million of additional depreciation expense was recognised to reflect the depreciation that would have been charged if the related assets had not previously been classified as held for sale.

(4) Changes in mark to market valuation of forward contracts represents movements in the fair value of certain fixed price forward coal sales contracts relating to Prodeco's future production, into which it plans to physically deliver. Following the legal reacquisition of Prodeco in March 2010, from an accounting perspective, these forward sales contracts could not technically be classified as "own use" or as cashflow hedges, which would have deferred the income statement effect until performance of the underlying future sale transactions. As at year end, approximately 19.3 million tonnes of such coal had been sold forward at a fixed price in respect of quarterly periods to the end of 2013.

(5) During the regular assessment of whether there is an indication of an asset impairment or whether a previously recorded impairment may no longer be required, an upward revision of long-term base metals and coal price assumptions resulted in an impairment reversal of U.S.$674 million against Glencore's interest in Xstrata. The recoverable amount of Glencore's share of the underlying net assets have been determined on the basis of its fair value less costs to sell using discounted cash flow techniques.

5 Income Taxes

Income taxes consist of the following:

	2008	2009	2010
	(U.S.$ million)		
Current income tax expense	(314)	(259)	(292)
Deferred income tax credit	46	21	58
Total	(268)	(238)	(234)

The effective Group tax rate is different from the statutory Swiss income tax rate applicable to the Company for the following reasons:

	2008	2009	2010
	(U.S.$ million)		
Income before income taxes and attribution	1,336	1,967	4,340
Less: share of income from Associates	(1,067)	(82)	(1,829)
Parent company's and subsidiaries' income before income tax and attribution	269	1,885	2,511
Income tax expense calculated at the Swiss income tax rate	(43)	(297)	(401)
Effect of different tax rates of subsidiaries operating in other jurisdictions	(160)	(19)	(78)
Tax-exempt income, net of non-deductible expenses and other permanent differences	26	56	254
Effect of use of tax losses and other deferred tax assets, not previously recognised[1]	(26)	15	135
Effect of change in tax rate on temporary differences	(23)	0	(145)
Other	(42)	7	1
Income tax expense	(268)	(238)	(234)

Note:

(1) Following the regular assessment and review of business plans related to Katanga Mining Limited, it was determined that a substantial portion of the previously unrecognised tax losses could be recognised.

Deferred taxes as at 31 December 2008, 31 December 2009 and 31 December 2010 are attributable to the items detailed in the table below:

	2008	2009	2010
	(U.S.$ million)		
Deferred tax assets[1]			
Tax losses carried forward	25	29	274
Mark to market valuations	64	59	95
Total	89	88	369
Deferred tax liabilities[1]			
Depreciation and amortisation	(167)	(257)	(926)
Mark to market valuations	(417)	(328)	(320)
Other	(46)	(41)	(62)
Total	(630)	(626)	(1,308)
Deferred tax—net	(541)	(538)	(939)
Reconciliation of deferred tax—net			
Opening balance	(573)	(541)	(538)
Recognised in income for the year	46	21	58
Recognised in other comprehensive income/(loss)	1	(7)	2
Acquisitions	(15)	(11)	(461)
Closing balance	(541)	(538)	(939)

Note:

(1) Asset and liability positions in the same category reflect the impact of tax assets and liabilities arising in local tax jurisdictions that cannot be offset against tax assets and liabilities arising in other tax jurisdictions.

Deferred tax assets are recognised for tax losses carried forward only to the extent that realisation of the related tax benefit is probable. As at 31 December 2010, U.S.$562 million (2009: U.S.$312 million; 2008: U.S.$208 million) of deferred tax assets related to available loss carry forwards have been brought to account, of which U.S.$274 million (2009: U.S.$29 million; 2008: U.S.$25 million) are disclosed as deferred tax assets with the remaining balance being offset against deferred tax liabilities arising in the same respective entity. For the following gross tax losses carried forward, no deferred tax assets have been recognised in the consolidated Historical Financial Information and will expire as follows:

	2008	2009	2010
	(U.S.$ million)		
1 year	70	85	75
2 years	21	48	56
3 years	72	8	38
Thereafter	222	904	394
Total	385	1,045	563

As at 31 December 2010, unremitted earnings of U.S.$12,255 million (2009: U.S.$10,263 million; 2008: U.S.$9,329 million) have been retained by subsidiaries and associates for reinvestment. No provision is made for income taxes that would be payable upon the distribution of such earnings. If earnings were remitted, an immaterial tax charge would result based on the tax statutes currently in effect.

6 Property, Plant and Equipment

	Land and buildings	Plant and equipment	Mineral and petroleum rights	Deferred mining costs	Total
			(U.S.$ million)		
Gross carrying amount:					
1 January 2008	725	5,136	1,030	256	7,147
Business combination	29	65	(36)	0	58
Additions	51	1,624	132	68	1,875
Disposals	(13)	(69)	(4)	(5)	(91)
Other movements	254	(238)	(47)	0	(31)
31 December 2008	1,046	6,518	1,075	319	8,958
Accumulated depreciation and impairment:					
1 January 2008	135	1,064	205	1	1,405
Depreciation	42	433	86	14	575
Impairment	6	50	39	2	97
Disposals	(3)	(32)	0	0	(35)
Other movements	(1)	65	(5)	(2)	57
31 December 2008	179	1,580	325	15	2,099
Net book value 31 December 2008	867	4,938	750	304	6,859

Plant and equipment includes expenditure for construction in progress of U.S.$1,381 million and a net book value of U.S.$80 million of obligations recognised under finance lease agreements. Mineral and petroleum rights include expenditures for exploration and evaluation of U.S.$118 million. Depreciation

expenses included in cost of goods sold are U.S.$562 million and in selling and administrative expenses U.S.$13 million.

	Notes	Land and buildings	Plant and equipment	Mineral and petroleum rights	Deferred mining costs	Total
				(U.S.$ million)		
Gross carrying amount:						
1 January 2009		1,046	6,518	1,075	319	8,958
Business combination	21	1	257	598	0	856
Additions		40	960	62	54	1,116
Business divestment		(31)	(135)	(51)	0	(217)
Disposals		(9)	(230)	(7)	(8)	(254)
Held for sale	13	(112)	(908)	(73)	(155)	(1,248)
Other movements		131	(207)	114	19	57
31 December 2009		1,066	6,255	1,718	229	9,268
Accumulated depreciation and impairment:						
1 January 2009		179	1,580	325	15	2,099
Business divestment		(2)	(96)	(47)	0	(145)
Depreciation		63	466	82	11	622
Disposals		(2)	(75)	0	(2)	(79)
Held for sale	13	(7)	(128)	(7)	(10)	(152)
Other movements		4	63	11	0	78
31 December 2009		235	1,810	364	14	2,423
Net book value 31 December 2009		831	4,445	1,354	215	6,845

Plant and equipment includes expenditure for construction in progress of U.S.$1,233 million and a net book value of U.S.$72 million of obligations recognised under finance lease agreements. Mineral and petroleum rights include expenditures for exploration and evaluation of U.S.$146 million. Depreciation expenses included in cost of goods sold are U.S.$607 million and in selling and administrative expenses U.S.$15 million.

	Notes	Land and buildings	Plant and equipment	Mineral and petroleum rights	Deferred mining costs	Total
				(U.S.$ million)		
Gross carrying amount:						
1 January 2010		1,066	6,255	1,718	229	9,268
Business combination	21	370	910	2,283	91	3,654
Additions		26	1,346	422	96	1,890
Disposals		(35)	(525)	(38)	(2)	(600)
Reclassified from held for sale	13	112	908	73	155	1,248
Other movements		(258)	293	26	(27)	34
31 December 2010		1,281	9,187	4,484	542	15,494
Accumulated depreciation and impairment:						
1 January 2010		235	1,810	364	14	2,423
Depreciation		77	752	171	26	1,026
Disposals		(15)	(177)	(12)	0	(204)
Reclassified from held for sale	13	7	128	7	10	152
Other movements		(65)	43	18	13	9
31 December 2010		239	2,556	548	63	3,406
Net book value 31 December 2010		1,042	6,631	3,936	479	12,088

Plant and equipment includes expenditure for construction in progress of U.S.$1,343 million and a net book value of U.S.$64 million of obligations recognised under finance lease agreements. Mineral and petroleum rights include expenditures for exploration and evaluation of U.S.$379 million. Depreciation expenses included in cost of goods sold are U.S.$893 million, in selling and administrative expenses U.S.$18 million and in other income/(expense)—net, Prodeco transaction related expenses U.S.$115 million.

7 Investments in Associates and Other Investments

	2008	2009	2010
	(U.S.$ million)		
Listed Associates	11,345	13,267	15,511
Non-listed Associates	1,876	1,614	1,255
Investments in Associates	13,221	14,881	16,766
Other investments	2,808	3,202	2,438
Total	16,029	18,083	19,204

A list of the principal operating, finance and industrial subsidiaries and Associates and other investments is included in Note 28. As at 31 December 2010, the fair value of listed Associates using price published quotations was U.S.$24,511 million (2009: U.S.$19,090 million; 2008: U.S.$3,454 million).

Listed Associates

In March 2009, Glencore participated in Xstrata's rights issue for U.S.$2,023 million.

In June 2009, following the conversion of a Katanga Mining Limited ("Katanga") convertible loan, Glencore acquired a controlling interest and its initial equity interest was therefore included and considered as part of the cost of acquisition (see Note 21).

Non-listed Associates

In May 2009, Glencore disposed of its 51 per cent. interest in Refineria de Cartagena for cash proceeds of U.S.$549 million (see Note 3).

Other investments

Other investments primarily include a 8.8 per cent. interest in United Company Rusal Plc ("UCR") (U.S.$2,048 million; 2009: U.S.$2,003 million; 2008: U.S.$2,003 million) which, following its listing on the Hong Kong Stock Exchange in January 2010, is carried at fair value with associated movements recognised within a related equity reserve (see Note 14). As at 31 December 2010, U.S.$113 million (2009 and 2008: U.S.$ nil million) of Glencore's investment in UCR was pledged as a guarantee against certain borrowings of UCR.

Summarised financial information in respect of Glencore's Associates, reflecting 100 per cent. of the underlying Associate's relevant figures, are set out below. Glencore's share of the joint venture's capital commitments for which the joint venture already has contractually committed financing in place, amounts to U.S.$831 million (2009: U.S.$346 million; 2008: U.S.$319 million).

	2008	2009	2010
	(U.S.$ million)		
Total assets	59,731	66,522	77,247
Total liabilities	32,965	30,136	32,506
Revenue	33,787	25,337	48,116
Net profit	3,125	826	4,941

8 Advances and Loans

	2008	2009	2010
	(U.S.$ million)		
Loans to Parents	64	66	72
Loans to Associates	378	832	426
Other non-current receivables and loans	1,384	1,637	3,332
Total	1,826	2,535	3,830

Loans to Parents (see Note 14) and Associates bear interest at applicable floating market rates plus a premium.

Other non-current receivables and loans comprise the following:

	2008	2009	2010
	(U.S.$ million)		
Counterparty			
OAO Russneft			
Interest-bearing loan at 9 per cent. per annum (see note below)	1,033	1,033	2,082
Atlas Petroleum International Limited ("Atlas")			
Interest-bearing loans at LIBOR plus 3 per cent.[1]	210	270	477
PT Bakrie & Brothers Tbk			
Interest-bearing secured loans at LIBOR plus 9 per cent.[2]	0	0	200
Secured marketing related financing arrangements[3]	0	148	330
Other	141	186	243
Total	1,384	1,637	3,332

Notes:

(1) Primarily relates to carried interest loans associated with the development of the Aseng oil project in Equatorial Guinea, where Atlas is one of the equity partners. The operator of the field and project is Noble Energy, based in Houston. The Aseng project is expected to commence oil production in the first quarter of 2012, with loans subsequently repaid from oil proceeds.

(2) The principal under this loan is payable in five equal semi-annual instalments from June 2012 to June 2014. The loan is secured by 968,442,000 shares (equivalent to 4.66 per cent.) in PT Bumi Resources Tbk., which as at 31 December 2010 were valued at U.S.$323 million.

(3) Various marketing-related financing facilities, generally secured against certain assets and/or payable from the future sale of production of the counterpart. The weighted average interest rate of the loans is 10 per cent. and on average are to be repaid over a three-year period.

Russneft loans

In December 2010, OAO Russneft ("Russneft") completed a significant debt amendment and restatement with its major lender, whereby Glencore's previously existing facilities, including some amounts which had been advanced for conversion into Russneft equity, were consolidated into a single facility. The consolidated facility, with a principal amount of U.S.$2,080 million, bears interest at 9 per cent. per annum, with 3 per cent. paid quarterly and the remaining 6 per cent. payable along with the principal. Repayment is expected in monthly instalments over a three-year period commencing in the fourth quarter of 2017, but in any event, not before repayment of the debt owing to the other major lender. The facility is secured by various pledges of shares of members of the Russneft group.

Glencore has accounted for this amendment and restatement as a substantial modification, which resulted in derecognition of all amounts carried under the existing facilities, including principal, accrued interest and equity conversion advances and recognition, at fair value, of the consolidated facility. The transaction resulted in a gain (after taking into account the carrying value of the principal, net of allowance for doubtful accounts, and accrued interest (U.S.$1,413 million) and equity conversion advances (U.S.$285 million)) of U.S.$382 million.

The loan amendment also constituted a loss event with respect to Glencore's equity holdings in certain Russneft subsidiaries due to the increased leverage, amended repayment profile and the enhancement of prioritised security of the consolidated loans and, as a consequence, an impairment charge of U.S.$336 million was recognised against other investments.

9 Inventories

	2008	2009	2010
	(U.S.$ million)		
Production inventories	1,511	1,894	2,805
Marketing inventories	6,294	13,179	14,588
Total	7,805	15,073	17,393

Production inventories consist of materials, spare parts, work in process and finished goods held by the production entities, whereas marketing inventories are commodities held by the marketing entities. Marketing inventories include readily marketable inventories of U.S.$14,331 million (2009: U.S.$12,945;

2008: U.S.$5,877 million). Readily marketable inventories are inventories that Glencore considers to be readily convertible into cash due to their very liquid nature, widely available markets and the fact that the price risk is covered either by a physical sale transaction or hedge transaction on a commodity exchange or with a highly rated counterparty.

Glencore has a number of dedicated financing facilities, which finance a portion of its marketing inventories. In each case, the inventory has not been derecognised as the Group retains the principal risks and rewards of ownership. The proceeds received are recognised as either current borrowings, commodities sold with agreements to repurchase or trade advances from buyers, depending upon their funding nature. As at 31 December 2010, the total amount of inventory securitised under such facilities was U.S.$2,426 million (2009: U.S.$3,192 million; 2008: U.S.$659 million). The proceeds received recognised as current borrowings were U.S.$1,338 million (2009: U.S.$1,663 million; 2008: U.S.$369 million), as commodities sold with agreements to repurchase, U.S.$484 million (2009: U.S.$477 million; 2008: U.S.$ nil million) and as trade advances from buyers, U.S.$67 million (2009: U.S.$419 million; 2008: U.S.$261 million).

10 Accounts Receivable

	2008	2009	2010
		(U.S.$ million)	
Trade receivables[1]	9,617	9,156	12,663
Trade advances and deposits[1]	2,526	4,415	4,297
Associated companies[1]	487	315	494
Other receivables	1,326	1,303	1,540
Total	13,956	15,189	18,994

Note:

(1) Collectively referred to as receivables.

The average credit period on sales of goods is 28 days (2009: 33 days; 2008: 26 days).

As at 31 December 2010, 5 per cent. of receivables were between 1 and 60 days overdue, and 2 per cent. were greater than 60 days overdue (2009: 6 per cent. were between 1 and 60 days overdue and 2 per cent. were greater than 60 days overdue; 2008: 9 per cent. were between 1 and 60 days overdue and 2 per cent. were greater than 60 days overdue). Such receivables, although contractually past their due dates, are not considered impaired as there has not been a significant change in credit quality of the relevant counterparty, and the amounts are still considered recoverable, taking into account customary payment patterns and, in many cases, offsetting accounts payable balances. Receivables are net of allowances for doubtful accounts of U.S.$155 million (2009: U.S.$302 million; 2008: U.S.$312 million), which take into consideration the diverse geographic and industrial composition of the accounts receivable portfolio. The decrease in allowance for doubtful accounts over 2010 is primarily attributable to the Russneft loan amendment and restatement described in Note 8.

Glencore has a number of dedicated financing facilities, which finance a portion of its receivables. In each case, the receivables have not been derecognised, as the Group retains the principal risks and rewards of ownership. The proceeds received are recognised as current borrowings (see Note 15). As at 31 December 2010, the total amount of trade receivables securitised was U.S.$2,349 million (2009: U.S.$1,590 million; 2008: U.S.$1,822 million) and proceeds received and classified as current borrowings amounted to U.S.$1,950 million (2009: U.S.$1,300 million; 2008: U.S.$1,600 million).

11 Other Financial Assets

	Notes	2008	2009	2010
		(U.S.$ million)		
Commodity-related contracts	23			
Futures		8,537	2,785	1,796
Options		300	409	149
Swaps		875	587	645
Physical forwards		3,874	2,049	3,118
Financial contracts	23			
Cross currency swaps		95	246	149
Foreign currency and interest rate contracts		81	49	125
Total		13,762	6,125	5,982

12 Cash and Cash Equivalents

	2008	2009	2010
	(U.S.$ million)		
Banks and cash on hand	776	738	1,090
Deposits and treasury bills	50	122	373
Total	826	860	1,463

U.S.$23 million (2009: U.S.$10 million; 2008: U.S.$83 million) was restricted.

13 Assets and Liabilities held for Sale

Following Glencore's acquisition in September 2010 of the Pacorini metals warehousing division ("Pacorini"), Glencore commenced a review of the strategic alternatives to strengthen Glencore's participation in the metals warehousing business, which is expected to result in a merger involving the acquired business and a third party. As a result, the corresponding assets (U.S.$161 million non-current and U.S.$119 million current) and liabilities (U.S.$1 million non-current and U.S.$44 million current) at 31 December 2010 were classified as held for sale.

Following the exercise of the call option to repurchase Prodeco from Xstrata in March 2010 and the subsequent decision not to partially or fully dispose of it, following a review of divestment options, the net assets previously classified as held for sale in 2009 were reclassified to the respective line items in the statement of financial position at depreciated cost. As a result of this change in accounting classification, a one time depreciation charge of U.S.$115 million was recognised within the total costs associated with the Prodeco option exercise (see Note 4), to reflect the additional depreciation that would have been charged if the related assets had not previously been classified as held for sale.

The major classes of assets and liabilities of Prodeco were as follows as at 31 December 2009:

	2009
	(U.S.$ million)
Property, plant and equipment	1,096
Investments in associates	37
Long term advances and loans	18
Deferred tax assets	2
Inventories	138
Accounts receivable	55
Cash and cash equivalents	3
Assets held for sale	1,349
Non-current provisions	29
Current borrowings	3
Accounts payable	203
Income tax payable	1
Liabilities held for sale	236

14 Share Capital and Reserves

The share capital of the Company consists of 150,000 registered shares with a nominal value of CHF 500 each, a restriction on transferability and carry the right to a preferred dividend at the Company's discretion of up to a maximum of 10 per cent. of nominal value per annum. Glencore Holding AG and Glencore L.T.E. AG (together the "Parents"), both wholly owned by the management and employees of Glencore, own 85 per cent. and 15 per cent., respectively, of the Company.

The Company is authorised by its articles of incorporation to issue to employees of Glencore, non-voting profit participation certificates ("PPC") with no nominal value, enabling the employees to participate in four profit sharing arrangements. The profit sharing arrangements entitle the participating employees to a portion of Glencore shareholders' funds accumulated during the period that such employees hold the PPCs. The PPCs attribute Glencore's net income pro rata based on the 150,000 (2009 and 2008: 150,000) shares issued. The amounts attributed out of net income for the year to profit participation shareholders are presented within Invested Capital, comprising equity share capital, reserves, accumulated amounts attributed to profit participation shareholders and non-controlling interests. All amounts attributed to profit participation shareholders are to convert to ordinary shares in the new parent company on the Global Offer.

On cessation of employment, the accumulated amounts attributed to an ordinary profit participation shareholder are reclassified into non-current borrowings as "Ordinary Profit Participation Certificates" and paid in instalments over a period of five years with interest accruing at six month U.S.$ LIBOR, with the portion falling due within 12 months included in current borrowings.

Earnings Per Share information is not presented on the grounds that the historical number of ordinary shares will have no relevance on completion of the Global Offer, the conversion of amounts attributable to profit participation shareholders to ordinary shares of the new parent company and the issuance of new share capital raised.

Reserves

	Notes	Translation adjustment	Equity portion of Convertible bonds	Cash Flow Hedge reserve	Net unrealised gain/ (loss)	Net ownership changes in subsidiaries	Reserves restricted	Total
				(U.S.$ million)				
Balance 1 January 2008		(5)	0	(215)	0	0	1	(219)
Exchange gain/(loss) on translation of foreign operations		(41)	0	0	0	0	0	(41)
Gain/(loss) on cash flow hedges, net of tax	22	0	0	(309)	0	0	0	(309)
Deferred taxes on hedges		0	0	1	0	0	0	1
Cash flow hedges transferred to the statement of income, net of tax		0	0	66	0	0	0	66
Equity related movements in Associates and other		2	0	0	0	0	0	2
Balance 31 December 2008		(44)	0	(457)	0	0	1	(500)
Balance 1 January 2009		(44)	0	(457)	0	0	1	(500)
Exchange gain/(loss) on translation of foreign operations		37	0	0	0	0	0	37
Gain/(loss) on cash flow hedges, net of tax	22	0	0	286	0	0	0	286
Cash flow hedges transferred to the statement of income, net of tax		0	0	82	0	0	0	82
Equity portion of convertible bonds	15	0	77	0	0	0	0	77
Balance 31 December 2009		(7)	77	(89)	0	0	1	(18)
Balance 1 January 2010		(7)	77	(89)	0	0	1	(18)
Exchange gain/(loss) on translation of foreign operations		8	0	0	0	0	0	8
Gain/(loss) on cash flow hedges, net of tax	22	0	0	(180)	0	0	0	(180)
Gain/(loss) on available for sale financial instruments	7	0	0	0	25	0	0	25
Cash flow hedges transferred to the statement of income, net of tax		0	0	6	0	0	0	6
Change in ownership interest in subsidiaries	21	0	0	0	0	(134)	0	(134)
Equity portion of convertible bonds	15	0	12	0	0	0	0	12
Balance 31 December 2010		1	89	(263)	25	(134)	1	(281)

15 Borrowings

	Notes	2008	2009	2010
			(U.S.$ million)	
Non-current borrowings				
144A Notes		944	945	946
Xstrata secured bank loans		740	2,282	0
Convertible bonds		0	1,838	2,132
Eurobonds		3,036	3,001	3,725
Swiss franc bonds		0	0	639
Sterling bonds		920	1,013	999
Perpetual notes		700	700	735
Ordinary profit participation certificates	14	1,341	1,392	1,059
Committed syndicated revolving credit facility		4,819	4,734	6,744
Other bank loans[1]		571	498	1,272
Total non-current borrowings		13,071	16,403	18,251
Current borrowings				
Committed syndicated revolving credit facility		0	1,156	515
Committed secured inventory/receivables facility	9/10	0	0	1,700
Committed secured inventory facility	9	369	310	0
Committed secured receivables facilities	10	0	0	700
Committed asset-backed (receivables) commercial paper programme	10	1,600	1,300	0
Bilateral uncommitted secured inventory facilities	9	0	1,353	888
U.S. commercial paper		0	214	310
Xstrata secured bank loans		900	0	2,292
Eurobonds		0	0	765
Perpetual notes		0	0	292
Ordinary profit participation certificates	14	706	830	796
Other bank loans[1][2]		1,670	2,023	3,623
Total current borrowings		5,245	7,186	11,881

Notes:

(1) Includes U.S.$63 million (2009: U.S.$65 million; 2008: U.S.$69 million) of obligations under financial leases of which U.S.$4 million (2009: U.S.$6 million; 2008: U.S.$7 million) was current as at the year end.

(2) Comprises various uncommitted bilateral bank credit facilities and other financings.

144A Notes

U.S.$950 million 6 per cent. coupon Notes due 2014. The Notes are recognised at amortised cost at an effective interest rate of 6.15 per cent. per annum.

Xstrata secured bank loans

Comprising two facilities with a total amount of U.S.$2,800 million, with U.S.$2,300 million outstanding as at 31 December 2010 and 31 December 2009. Both facilities mature in September 2011. The facilities have been accounted for as secured bank loans which bear interest at a rate of U.S.$ LIBOR plus a margin. As at 31 December 2010, U.S.$4,199 million (2009: U.S.$4,188 million; 2008: U.S.$2,739 million) of the carrying value of Glencore's investment in Xstrata was pledged as security.

Convertible bonds

In December 2009, the Group issued U.S.$2,000 million 5 per cent. coupon convertible bonds due December 2014. The bonds are convertible at the option of investors into a certain percentage of Glencore's equity upon a qualifying IPO or upon other pre-determined qualifying events. The bonds contain several embedded derivatives which IFRS requires be accounted for separately, the most significant of these being that if the bonds have not been converted and no qualifying event occurs, they will be redeemed at maturity at 108.1 per cent. of their nominal amount. In addition, if a qualifying IPO or other pre-determined qualifying events have not occurred prior to December 2012, bondholders may, subject to Glencore having achieved a "pre-exceptional" net income of U.S.$3.5 billion in the preceding

12 months or in the event that Glencore is acquired for cash consideration, put the bonds back to Glencore at an amount which achieves a cumulative annualised return of 20 per cent. Payment in this regard could occur from mid-2013 at the earliest.

The bonds consist of a liability component and an equity component. The fair values of the liability component (U.S.$1,923 million) and the equity component (U.S.$77 million) were determined, using the residual method, at issuance of the bonds. The liability component is measured at amortised cost at an effective interest rate of 5.90 per cent. per annum. At issuance and each subsequent period end, the embedded derivatives were concluded to have a fair value of U.S.$ nil due to the probability weighting attributed to the related conditions. Over the first half of 2010, U.S.$300 million of additional Convertible bonds, convertible into 0.84 per cent. of Glencore's equity were issued under the same terms and conditions as those issued in December 2009, with the equity component equalling U.S.$12 million and the liability component equalling U.S.$288 million. In relation to the potential conversion, the terms of the bonds enable a conversion into 6.25 per cent. of Glencore's equity as at 31 December 2010.

Euro, Sterling and Swiss Franc bonds

The Group has issued bonds denominated in Euro, Sterling and Swiss Franc where, upon issuance, the principal amounts and the future interest payments were swapped into their U.S. dollar equivalent. The details of amounts issued and outstanding are as follows:

	Maturity	Initial U.S.$ equivalent	U.S.$ fixed interest rate in %	2008	2009	2010
				(U.S.$ million)		
Euro 600 million 5.375 per cent. coupon bonds	September 2011	739	5.78	834	817	765
Euro 850 million 5.250 per cent. coupon bonds	October 2013	1,078	6.60	1,171	1,154	1,080
Euro 750 million 7.125 per cent. coupon bonds	April 2015	1,200	6.86	1,031	1,030	968
Euro 1,250 million 5.250 per cent. coupon bonds	March 2017	1,708	6.07	0	0	1,677
Total		4,725		3,036	3,001	4,490
GBP 650 million 6.50 per cent. coupon bonds	February 2019	1,266	6.58	920	1,013	999
CHF 600 million 3.625 per cent. coupon bonds	April 2016	593	4.87	0	0	639
		6,584		3,956	4,014	6,128

Perpetual notes

U.S.$700 million 8 per cent. notes, callable after February 2011 at par. In December 2010, Glencore announced its intention to call U.S.$300 million of the outstanding notes. This partial redemption was subsequently completed on 6 February 2011. In October 2010, Glencore issued U.S.$350 million 7.5 per cent. notes, callable after October 2015 at par.

Ordinary profit participation certificates

Profit participation certificates ("PPC") bear interest at six month U.S.$ LIBOR and in the event of certain triggering events (see Note 14), all PPC would be subordinated to unsecured lenders.

Committed revolving credit facilities

In May 2010, Glencore replaced the previous 364 day U.S.$815 million revolving credit facility with a new 364-day U.S.$1,375 million facility with a one-year term out option at Glencore's discretion as well as a 364-day U.S.$515 million Asian focused tranche. In addition, Glencore replaced the U.S.$8,180 million medium-term revolving credit facility with a new three-year revolving credit facility of U.S.$8,370 million and cancelled the U.S.$6,650 million forward start facility concluded in 2009. Up to U.S.$1,000 million of the medium-term tranche may be used as liquidity back up for Glencore's corporate U.S. commercial paper programme.

Committed secured inventory/receivables facility

In November 2010, the Company and Glencore AG entered into a 364-day committed U.S.$1.7 billion secured inventory and receivables borrowing base facility. Under the programme, Glencore has the option to pledge up to U.S.$750 million of eligible base metals inventory or up to U.S.$1.7 billion of eligible receivables. Funds drawn under the facility bear interest at U.S.$ LIBOR plus a margin.

Committed secured receivables facilities

In April 2010, Glencore entered into a six-month U.S.$550 million committed secured receivables financing programme, which was extended for a further year and increased to U.S.$700 million in December 2010. Funds drawn under the facility bear interest at U.S.$ LIBOR plus a margin.

U.S. commercial paper

Glencore has in place a stand-alone U.S. commercial paper programme for U.S.$1,000 million rated A3 and P2, respectively, by Standard & Poor's and Moody's rating agencies. The notes issued under this programme carry interest at floating market rates and mature not more than 270 days from the date of issue.

16 Deferred Income

During 2006, Glencore entered into an agreement to deliver a fixed quantity of silver concentrate, a by-product from its mining operations, for a period of 15 years at a fixed price for which Glencore received an upfront payment of U.S.$285 million. The outstanding balance represents the remaining non-current portion of the upfront payment. The upfront payment is released to revenue at a rate consistent with the implied forward price curve at the time of the transaction and the actual quantities delivered.

17 Provisions

	Post retirement benefits[1]	Employee entitlement[2]	Rehabilitation costs[3]	Exchange feature[4]	Other[5]	Total
			(U.S.$ million)			
1 January 2008	72	80	199	506	142	999
Provision utilised in the year	(24)	(9)	(6)	(506)	(82)	(627)
Additional provision in the year	10	0	4	0	16	30
31 December 2008	58	71	197	0	76	402
1 January 2009	58	71	197	0	76	402
Provision utilised in the year	(2)	(4)	0	0	(26)	(32)
Provisions assumed in business combination	2	0	10	0	40	52
Additional provision in the year	1	18	29	0	75	123
31 December 2009	59	85	236	0	165	545
1 January 2010	59	85	236	0	165	545
Provision utilised in the year	(4)	(2)	(5)	0	(22)	(33)
Provisions assumed in business combination	4	0	3	0	0	7
Additional provision in the year	1	15	145	0	39	200
31 December 2010	60	98	379	0	182	719

Notes:

(1) See Note 18.

(2) The employee entitlement provision represents the value of state-governed employee entitlements due to employees upon their termination of employment.

(3) Rehabilitation provision represents the accrued cost required to provide adequate restoration and rehabilitation upon the completion of extraction activities. These amounts will be settled when rehabilitation is undertaken, generally at the end of a project's life, which ranges from 2 to 50 years. The Group makes contributions to rehabilitation trusts to meet some of the costs of rehabilitation liabilities in South Africa.

(4) In 2008, Glencore repurchased and cancelled all the remaining Exchangeable bonds it had previously issued and simultaneously settled the embedded derivative (exchange feature) contained therein.

(5) Other includes primarily provisions in respect of mine concession obligations of U.S.$54 million (2009: U.S.$56 million; 2008: U.S.$nil million) and construction-related contractual provisions of U.S.$29 million (2009: U.S.$45 million; 2008: U.S.$nil million).

18 Personnel Costs and Retirement Benefits

Total personnel costs, which includes salaries, wages, social security and other personnel costs and excludes attribution to profit participation shareholders, incurred for the year ended 31 December 2010 were U.S.$1,677 million (2009: U.S.$1,281 million; 2008: U.S.$1,363 million). Personnel costs related to consolidated industrial subsidiaries of U.S.$885 million (2009: U.S.$672 million; 2008: U.S.$791 million) are included in cost of goods sold. Other personnel costs are included in selling and administrative expenses.

The Company and certain subsidiaries sponsor various pension schemes in accordance with local regulations and practices. Eligibility for participation in the various plans is either based on completion of a specified period of continuous service, or date of hire. The plans provide for certain employee and employer contributions, ranging from 5 per cent. to 16 per cent. of annual salaries, depending on the employee's years of service. Among these schemes are defined contribution plans as well as defined benefit plans. The main locations with defined benefit plans are Switzerland, the UK and the U.S.

Defined contribution plans

Glencore's contributions under these plans amounted to U.S.$11 million in 2010 and to U.S.$6 million in 2009 and 2008.

Defined benefit plans

The total present value of the Group's defined benefit obligation amounted to U.S.$422 million at 31 December 2010 (2009: U.S.$363 million; 2008: U.S.$324 million) compared to the total fair value of plan assets of U.S.$267 million (2009: U.S.$232 million; 2008: U.S.$190 million). Further details of the Group's defined benefit plans are not disclosed on the basis that they are not material to the Group's financial position.

19 Accounts Payable

	2008	2009	2010
		(U.S.$ million)	
Trade payables	7,445	8,162	12,450
Trade advances from buyers[1]	2,118	946	634
Associated companies	1,074	1,371	1,788
Other payables and accrued liabilities	977	1,003	1,273
Total	11,614	11,482	16,145

Note:

(1) See Note 9.

20 Other Financial Liabilities

	Notes	2008	2009	2010
		(U.S.$ million)		
Commodity-related contracts	23			
Futures		8,409	5,747	4,142
Options		904	565	194
Swaps		568	657	784
Physical forwards		2,868	1,274	2,218
Financial contracts	23			
Cross currency swaps		764	371	660
Foreign currency and interest rate contracts		78	29	68
Total		13,591	8,643	8,066

21 Acquisition and Disposal of Subsidiaries

2008 Acquisitions

During 2008, Glencore completed a few smaller acquisitions which have been accounted for as business combinations. The acquisitions are not individually significant to the Historical Financial Information and are therefore presented in aggregate. The fair value of the assets acquired and liabilities assumed at the date of acquisition were:

	2008
	(U.S.$ million)
Property, plant and equipment	58
Inventories	49
Accounts receivable	77
Cash and cash equivalents	11
Non-controlling interest	114
Deferred tax liabilities	(15)
Accounts payable	(156)
Total fair value of net assets acquired	138
Less: amounts previously recognised through investments and loans	28
Less: cash and cash equivalents acquired	11
Net cash used in acquisition of subsidiaries	99

For the period post-acquisition, these operations contributed net income of a loss of U.S.$10 million to Glencore.

2009 Acquisitions

During 2009, the net cash used in the acquisition of subsidiaries related mainly to Katanga Mining Limited ("Katanga"). The fair value of the assets acquired and liabilities assumed at the date of acquisition were:

	2009
	(U.S.$ million)
Property, plant and equipment	856
Goodwill	161
Inventories	83
Accounts receivable	61
Cash and cash equivalents	242
Non-controlling interest	(240)
Non-current borrowings	(102)
Provisions and other non-current borrowings	(52)
Deferred tax liability	(11)
Accounts payable	(192)
Total fair value of net assets acquired	806
Less: amounts previously recognised through investments and loans	537
Less: cash and cash equivalents acquired	242
Net cash used in acquisition of subsidiaries	27

In January 2009, Glencore participated in a Katanga convertible loan issue via a combination of existing and new loans which, when converted on 2 June 2009, resulted in Glencore holding a 68 per cent. interest in Katanga. Shortly thereafter, Glencore acquired an additional 1.2 per cent. interest, bringing its ownership to 69.2 per cent. The acquisition has been accounted for as a business combination with the non-controlling interest being measured at fair value using discounted cash flow techniques. The total cash consideration of the acquisition, including the amounts paid prior to 2009, was U.S.$619 million. However, under IFRS, the consideration, for acquisition purposes, is deemed to be fair value of the previously held equity interests and the convertible loan determined by reference to the quoted share price on the date of acquisition. In this regard, Glencore realised a net, non-cash gain of U.S.$161 million comprising a gain on conversion of the convertible loan, offset by a loss on its original 8.5 per cent. interest in Katanga. The total consideration measured under IFRS 3 was therefore U.S.$780 million and a goodwill impairment of U.S.$161 million was recognised forthright, based on a detailed fair value assessment of the acquired assets and liabilities, using discounted cash flow techniques with a discount rate of 12 per cent.

2010 Acquisitions

During 2010, Glencore acquired controlling interests in various businesses, the most significant being Vasilkovskoje Gold, Chemoil Energy Limited ("Chemoil") and Pacorini. The net cash used in the

acquisition of subsidiaries and the fair value of the assets acquired and liabilities assumed at the date of acquisition are detailed below:

	Vasilkovskoje	Chemoil	Pacorini[1]	Other[2]	Total
			(U.S.$ million)		
Property, plant and equipment	2,855	519	0	280	3,654
Investments in Associates	0	69	0	0	69
Inventories	44	317	0	93	454
Accounts receivable	103	703	0	76	882
Cash and cash equivalents	13	108	0	11	132
Assets held for sale	0	0	277	0	277
Non-controlling interest	(947)	(230)	0	(55)	(1,232)
Non-current liabilities/borrowings	(14)	(166)	0	(61)	(241)
Deferred tax liabilities	(365)	(96)	0	0	(461)
Accounts payable	(81)	(493)	0	(212)	(786)
Current borrowings	0	(494)	0	(10)	(504)
Liabilities held for sale	0	(0)	(68)	0	(68)
Total fair value of net assets acquired	1,608	237	209	122	2,176
Less: amounts previously recognised through investments and loans	1,403	0	0	17	1,420
Less: cash and cash equivalents acquired	13	108	0	11	132
Net cash used in acquisition of subsidiaries	192	129	209	94	624

Notes:

(1) Acquisition accounting determined on a provisional basis.

(2) Includes the acquisition of a 76 per cent. interest in Rio Vermelho, a 60 per cent. interest in Biopetrol Industries AG and a 100 per cent. interest in Minera Altos de Punitaqui.

Vasilkovskoje

In February 2010, Kazzinc purchased the remaining 60 per cent. of Vasilkovskoje Gold, a gold development company, that it did not previously own for U.S.$1,140 million to enhance its existing gold production base. The acquisition was funded through the payment of U.S.$204 million and the issuance of new Kazzinc shares, which resulted in Glencore's ultimate ownership in Kazzinc being diluted from 69 per cent. to 50.7 per cent. (without a loss of control). The dilution resulted in a loss of U.S.$99 million which has been recognised in reserves (see Note 14). Prior to acquisition, Kazzinc owned a 40 per cent. interest in Vasilkovskoje Gold which, at the date of acquisition, was revalued to its fair value of U.S.$760 million and as a result, a net gain of U.S.$462 million was recognised in other income (see Note 4). The acquisition has been accounted for as a business combination with the non-controlling interest being measured at its percentage of net assets acquired determined by using discounted cash flow techniques with a discount rate of 8.5 per cent.

For the period post-acquisition, Vasilkovskoje Gold contributed revenue of U.S.$130 million and a loss before attribution of U.S.$15 million. If the acquisition had taken place effective 1 January 2010, the operation would have contributed revenue of U.S.$131 million and a loss before attribution of U.S.$22 million.

Chemoil

In April 2010, Glencore completed the acquisition of a 51.5 per cent. stake in Chemoil, a Singapore-listed fuel oil storage and supply company, for U.S.$237 million cash consideration. The acquisition has been accounted for as a business combination with the non-controlling interest being measured at its percentage of net assets acquired.

For the period post-acquisition, Chemoil contributed revenue of U.S.$6,089 million and income before attribution of U.S.$4 million. If the acquisition had taken place effective 1 January 2010, the operation would have contributed revenue of U.S.$7,175 million and a loss before attribution of U.S.$3 million.

Pacorini

In September 2010, Glencore acquired the metals warehousing division of Italy's Pacorini Group ("Pacorini") for U.S.$209 million in cash. As contemplated at the time of the acquisition, Glencore commenced a review of the strategic alternatives to strengthen Glencore's participation in the metals warehousing business, which is expected to result in a merger involving the acquired business and a third party. As a result, the assets and liabilities have been classified as held for sale (see Note 13).

For the period post-acquisition, Pacorini contributed revenue of U.S.$64 million and income before attribution of U.S.$5 million. If the acquisition had taken place effective 1 January 2010, the operation would have contributed revenue of U.S.$220 million and an income before attribution of U.S.$31 million.

Disposals

In 2008, there were no material disposals of subsidiaries.

In 2009, Glencore disposed of its interests in the East Tennessee Zinc Company LLC operations.

	2009
	(U.S.$ million)
Property, plant and equipment	72
Inventories	12
Accounts receivable	52
Cash and cash equivalents	6
Accounts payable	(119)
Total net assets disposed	23
Net gain on disposal	97
Net cash proceeds	120

In 2010, there were no material disposals of subsidiaries.

22 Financial and Capital Risk Management

Components of Glencore's business could be impacted by various external factors, such as a major global economic downturn, which could result in significantly lower commodity prices and demand, political events, unfavourable actions by governments, natural catastrophes, operational disruptions or financial risks such as market risk (including commodity price risk, interest rate risk and currency risk), credit risk (including performance risk) and liquidity risk. It is Glencore's policy and practice to identify and, where appropriate and practical, actively manage such risks to support its objectives in managing its capital and future financial security and flexibility.

Glencore's objectives in managing its capital base (see table below) include preserving its overall financial health and strength for the benefit of all stakeholders and safeguarding its ability to continue as a going concern, while generating sustainable long-term profitability.

	2008	2009	2010
		(U.S.$ million)	
Invested capital	16,311	17,944	22,507
Less: non-controlling interests	906	1,258	2,894
Shareholders' funds	15,405	16,686	19,613

Glencore believes that effective, proactive and transparent risk management supports its objective of protecting its current and future financial security, and is of primary importance to its success. An important component of this process is Glencore's employee ownership structure, which aligns the interests of shareholders and management, and fosters a culture of excellence, teamwork and accountability. As management has significant amounts of capital invested in Glencore, with overall compensation skewed in favour of longer term incentives, it is strongly motivated to take a long-term view of overall business performance and to protect Glencore's capital base. Glencore believes that its consistent profitability, the long-term tenure of its management and its prudent risk management policies can in part be attributed to its employee ownership structure. Furthermore, Glencore operates a number

of centralised financial, operational, compliance and legal risk management functions in order to monitor, manage and mitigate overall risk exposure, within approved guidelines.

Glencore's overall risk management programme focuses on the unpredictability of financial markets and seeks to protect its financial security and flexibility by using derivative financial instruments, where possible, to substantially hedge these financial risks. Glencore's finance and risk professionals, working in co-ordination with the commodity departments, monitor, manage and report regularly to management on the financial risks and exposures facing the Group.

Certain borrowing arrangements require compliance with specific financial covenants related to working capital, minimum current ratio and a maximum non-current debt to tangible net worth ratio. During the period, the Company has complied with these requirements.

Commodity price risk

Glencore is exposed to price movements for the inventory it holds and the products it produces which are not held to meet priced forward contract obligations and forward priced purchase or sale contracts which are not hedged. Glencore manages a significant portion of this exposure through futures and options transactions on worldwide commodity exchanges or in OTC markets, to the extent available. Commodity price risk management activities are considered an integral part of Glencore's physical commodity marketing activities and the related assets and liabilities are included in other financial assets from and other financial liabilities to derivative counterparties, including clearing brokers and exchanges.

Glencore has entered into futures transactions to hedge the price risk of specific future operating expenditures. These transactions were identified as cash flow hedges. The fair value of these derivatives is as follows:

	Notional amounts		Recognised fair values		
	Buy	Sell	Assets	Liabilities	Maturity
			(U.S.$ million)		
Commodity futures—2008	0	391	0	75	2010
Commodity futures—2009	0	195	0	41	2011
Commodity futures—2010	0	187	0	75	2012

Value at risk

One of the tools used by Glencore to monitor and limit its primary market risk exposure, namely commodity price risk related to its physical marketing activities, is the use of a value at risk ("VaR") computation. VaR is a risk measurement technique, which estimates the potential loss that could occur on risk positions as a result of movements in risk factors over a specified time horizon, given a specific level of confidence. The VaR methodology is a statistically defined, probability based approach that takes into account market volatilities, as well as risk diversification by recognising offsetting positions and correlations between commodities and markets. In this way, risks can be measured consistently across all markets and commodities and risk measures can be aggregated to derive a single risk value. Glencore has set a consolidated VaR limit (one day 95 per cent.) of U.S.$100 million representing less than 1 per cent. of Glencore shareholders' funds.

Glencore uses a VaR approach based on Monte Carlo simulations and is either a one-day or one-week time horizon computed at a 95 per cent. confidence level with a weighted data history.

Daily position sheets are distributed and monitored, and weekly Monte Carlo simulations are applied to the various business groups' net marketing positions to determine potential future exposures. As at 31 December 2010, Glencore's 95 per cent., one-day market risk VaR was U.S.$58 million (2009: U.S.$28 million; 2008: U.S.$53 million). Average market risk VaR (one-day 95 per cent.) during 2010 was U.S.$43 million compared to U.S.$27 million during 2009 and to U.S.$50 million in 2008.

VaR does not purport to represent actual gains or losses in fair value on earnings to be incurred by Glencore, nor does Glencore claim that these VaR results are indicative of future market movements or representative of any actual impact on its future results. VaR should always be viewed in the context of its limitations; notably, the use of historical data as a proxy for estimating future events, market illiquidity risks and tail risks. Glencore recognises these limitations, and thus complements and continuously refines its VaR analysis by analysing forward-looking stress scenarios and back-testing calculated VaR against

actual movements arising in the next business week. During 2009 and 2008, certain commodities that Glencore markets and accounts for at fair value were not included in the VaR calculation as well established and liquid price points were not available. These positions are nonetheless reported on the daily position sheets and assuming the net year end positions had been outstanding for the whole year, and market prices were 5 per cent. higher/lower and all other variables held constant, Glencore's income and shareholders' funds for the year ended 31 December 2009, would have decreased/increased by U.S.$30 million (2008: decrease/increase by U.S.$14 million). During 2010, all key commodities which Glencore markets have been included in the VaR analysis.

Net present value at risk

Glencore's future cash flows related to its forecast energy, minerals and agricultural production activities are also exposed to commodity price movements. Glencore manages this exposure through a combination of portfolio diversification, occasional shorter term hedging via futures and options transactions, insurance products and continuous internal monitoring, reporting and quantification of the underlying operations' estimated valuations.

Interest rate risk

Glencore is exposed to various risks associated with the effects of fluctuations in the prevailing levels of market interest rates on its assets and liabilities and cash flows. Matching of assets and liabilities is utilised as the dominant method to hedge interest rate risks. Floating-rate debt which is predominantly used to fund fast turning working capital (interest is internally charged on the funding of this working capital) is primarily based on U.S.$ LIBOR plus an appropriate premium. Accordingly, prevailing market interest rates are continuously factored into transactional pricing and terms.

Assuming the amount of floating-rate liabilities at the reporting period end were outstanding for the whole year, interest rates were 50 basis points higher/lower and all other variables held constant, Glencore's income and shareholders' funds for the year ended 31 December 2010 would decrease/increase by U.S.$91 million (2009: decrease/increase by U.S.$71 million; 2008: decrease/increase by U.S.$64 million).

Currency risk

The U.S. dollar is the predominant functional currency of the Group. Currency risk is the risk of loss from movements in exchange rates related to transactions and balances in currencies other than the U.S. dollar. Such transactions include operating expenditure, capital expenditure and, to a lesser extent, purchases and sales in currencies other than the functional currency. Purchases or sales of commodities concluded in currencies other than the functional currency, apart from certain limited domestic sales at industrial operations which act as a hedge against local operating costs, are promptly hedged through forward exchange contracts. Consequently, foreign exchange movements against the U.S. dollar on recognised transactions would have a negligible financial impact. Glencore enters into currency hedging transactions with leading financial institutions.

Glencore's debt related payments (both principal and interest) are denominated in or swapped using hedging instruments into U.S. dollars. Glencore's operating expenses, being a small portion of its revenue base, are incurred in a mix of currencies of which the U.S. dollar, Swiss Franc, Pound Sterling, Australian Dollar and Euro are the predominant currencies.

Glencore has issued Euro-, Swiss Franc- and Sterling-denominated bonds (see Note 15). Cross currency swaps were concluded to hedge the currency risk on the principal and related interest payments of these bonds. These contracts were designated as cash flow hedges of the foreign currency risks associated with the bonds. The fair value of these derivatives is as follows:

	Notional amounts		Recognised fair values		Average maturity[1]
	Buy	Sell	Assets	Liabilities	
			(U.S.$ million)		
Cross currency swap agreements—2008	0	4,283	0	384	2015
Cross currency swap agreements—2009	0	4,283	0	48	2015
Cross currency swap agreements—2010	0	6,584	0	185	2015

Note:

(1) Refer to Note 15 for details.

Credit risk

Credit risk arises from the possibility that counterparties may not be able to settle obligations due to Glencore within their agreed payment terms. Financial assets which potentially expose Glencore to credit risk consist principally of cash and cash equivalents, marketable securities, receivables and advances, derivative instruments and non-current advances and loans. Glencore's credit management process includes the assessment, monitoring and reporting of counterparty exposure on a regular basis. Glencore's cash equivalents are placed overnight with a diverse group of highly credit rated financial institutions. Credit risk with respect to receivables and advances is mitigated by the large number of customers comprising Glencore's customer base, their diversity across various industries and geographical areas, as well as Glencore's policy to mitigate these risks through letters of credit, netting, collateral and insurance arrangements, where appropriate. Additionally, it is Glencore's policy that transactions and activities in trade-related financial instruments be concluded under master netting agreements or long-form confirmations to enable offsetting of balances due to/from a common counterparty in the event of default by the counterparty.

Glencore actively and continuously monitors the credit quality of its counterparties through internal reviews and a credit scoring process, which includes, where available, public credit ratings. Balances with counterparties not having a public investment grade or equivalent internal rating are typically enhanced to investment grade through the extensive use of credit enhancement products, such as letters of credit or insurance products. Glencore has a diverse customer base, with no customer representing more than 3.4 per cent. (2009: 2.3 per cent.; 2008: 2.8 per cent.) of its trade receivables or accounting for more than 3 per cent. of its revenues over the year ended 2010 (2.8 per cent. in 2009 and 2008).

The maximum exposure to credit risk, without considering netting agreements or without taking account of any collateral held or other credit enhancements, is equal to the carrying amount of Glencore's financial assets plus guarantees to third parties and Associates (see Note 25).

Performance risk

Performance risk arises from the possibility that counterparties may not be willing or able to meet their future contractual physical sale or purchase obligations to/from Glencore. Glencore undertakes the assessment, monitoring and reporting of performance risk within its overall credit management process. Glencore's market breadth, diversified customer base as well as the standard pricing mechanism in the majority of Glencore's commodity portfolio which does not fix prices beyond three months, with the main exception being coal where longer-term fixed price contracts are common, ensure that performance risk is adequately mitigated. The commodity industry is continuing a trend towards shorter fixed price contract periods, in part to mitigate against such potential performance risk, but also due to the development of more transparent and liquid spot markets, e.g. coal and iron ore and associated derivative products and indexes.

Liquidity risk

Liquidity risk is the risk that Glencore is unable to meet its payment obligations when due, or that it is unable, on an ongoing basis, to borrow funds in the market on an unsecured or secured basis at an acceptable price to fund actual or proposed commitments. Prudent liquidity risk management implies maintaining sufficient cash and cash equivalents through the availability of adequate committed funding facilities. Glencore has set itself an internal minimum liquidity target to maintain at all times, available committed undrawn credit facilities of U.S.$3 billion. Glencore's credit profile, diversified funding sources and committed credit facilities, ensure that sufficient liquid funds are maintained to meet its liquidity requirements. As part of its liquidity management, Glencore closely monitors and plans for its future capital expenditure and proposed investments, as well as credit facility refinancing/extension requirements, well ahead of time.

Glencore's financial forecasts and projections, taking into account reasonably possible changes in performance, indicate it is appropriate to adopt the going concern basis in preparing these financial statements.

As at 31 December 2010, Glencore had available committed undrawn credit facilities, cash and marketable securities amounting to U.S.$4,220 million (2009: U.S.$3,826 million; 2008: U.S.$5,255 million).

The maturity profile of Glencore's financial liabilities, excluding amounts attributed to profit participation shareholders, based on the contractual terms is as follows:

	2008					
	After 5 years	Due 3–5 years	Due 2–3 years	Due 1–2 years	Due 0–1 years	Total
			(U.S.$ million)			
Borrowings[1]	3,684	1,505	7,048	834	5,245	18,316
Expected future interest payments	882	623	516	527	527	3,075
Accounts payable	0	0	0	0	11,614	11,614
Other financial liabilities	0	0	2,119	3,139	8,333	13,591
Total	4,566	2,128	9,683	4,500	25,719	46,596
Current assets					36,508	36,508

	2009					
	After 5 years	Due 3–5 years	Due 2–3 years	Due 1–2 years	Due 0–1 years	Total
			(U.S.$ million)			
Borrowings[1]	2,943	4,344	5,507	3,950	6,845	23,589
Expected future interest payments	602	842	554	697	689	3,384
Commodities sold with agreements to repurchase	0	0	0	0	477	477
Prodeco call option arrangement	0	0	0	0	2,303	2,303
Accounts payable	0	0	0	0	11,482	11,482
Other financial liabilities	0	0	627	2,163	5,853	8,643
Liabilities held for sale	0	0	0	0	236	236
Total	3,545	5,186	6,688	6,810	27,885	50,114
Current assets					38,725	38,725

	2010					
	After 5 years	Due 3–5 years	Due 2–3 years	Due 1–2 years	Due 0–1 years	Total
			(U.S.$ million)			
Borrowings[1]	4,152	4,974	7,094	2,031	11,881	30,132
Expected future interest payments	668	949	766	800	834	4,017
Commodities sold with agreements to repurchase	0	0	0	0	484	484
Accounts payable	0	0	0	0	16,145	16,145
Other financial liabilities	0	739	288	955	6,084	8,066
Liabilities held for sale	0	0	0	0	45	45
Total	4,820	6,662	8,148	3,786	35,473	58,889
Current assets					44,296	44,296

Note:

(1) 2008: U.S.$ nil million; 2009: U.S.$341 million; 2010: U.S.$ nil million of reported short-term debt is drawn under a three-year committed facility.

23 Financial Instruments

Fair value of financial instruments

The following table presents the carrying values and fair values of Glencore's financial instruments. Fair value is the amount at which a financial instrument could be exchanged in an arm's length transaction between informed and willing parties, other than in a forced or liquidated sale. Where available, market values have been used to determine fair values. When market values are not available, fair values have been calculated by discounting expected cash flows at prevailing interest and exchange rates. The estimated fair values have been determined using market information and appropriate valuation

methodologies, but are not necessarily indicative of the amounts that Glencore could realise in the normal course of business.

	2008				
	Carrying value[1]	Available for sale	FVtPL[2]	Total	Fair value
	(U.S.$ million)				
Assets					
Other investments	0	2,623	185	2,808	2,808
Advances and loans	1,826	0	0	1,826	1,826
Accounts receivable	13,956	0	0	13,956	13,956
Other financial assets	0	0	13,762	13,762	13,762
Cash and cash equivalents and marketable securities	0	0	939	939	939
Total financial assets	15,782	2,623	14,886	33,291	33,291
Liabilities					
Amounts attributed to profit participation shareholders	12,604	0	0	12,604	12,604
Borrowings	18,316	0	0	18,316	15,392
Accounts payable	11,614	0	0	11,614	11,614
Other financial liabilities	0	0	13,591	13,591	13,591
Total financial liabilities	42,534	0	13,591	56,125	53,201

Notes:

(1) Carrying value comprises investments, loans, accounts receivable, accounts payable and other liabilities measured at amortised cost.

(2) FVtPL—Fair value through profit and loss—held for trading.

	2009				
	Carrying value[1]	Available for sale	FVtPL[2]	Total	Fair value
	(U.S.$ million)				
Assets					
Other investments[3]	0	2,624	578	3,202	3,202
Advances and loans	2,535	0	0	2,535	2,535
Accounts receivable	15,189	0	0	15,189	15,189
Other financial assets	0	0	6,125	6,125	6,125
Cash and cash equivalents and marketable securities	0	0	935	935	935
Total financial assets	17,724	2,624	7,638	27,986	27,986
Liabilities					
Amounts attributed to profit participation shareholders	12,245	0	0	12,245	12,245
Borrowings	23,589	0	0	23,589	23,641
Commodities sold with agreements to repurchase	477	0	0	477	477
Prodeco call option arrangement	0	0	2,303	2,303	2,303
Accounts payable	11,482	0	0	11,482	11,482
Other financial liabilities	0	0	8,643	8,643	8,643
Total financial liabilities	47,793	0	10,946	58,739	58,791

Notes:

(1) Carrying value comprises investments, loans, accounts receivable, accounts payable and other liabilities measured at amortised cost.

(2) FVtPL—Fair value through profit and loss—held for trading.

(3) Other investments contain U.S.$578 million in Level 1 and U.S.$2,624 million in Level 3. There were no changes in Level 3 for the year.

	2010				
	Carrying value[1]	Available for sale	FVtPL[2]	Total	Fair value
			(U.S.$ million)		
Assets					
Other investments[3]	0	2,048	390	2,438	2,438
Advances and loans	3,830	0	0	3,830	3,830
Accounts receivable	18,994	0	0	18,994	18,994
Other financial assets	0	0	5,982	5,982	5,982
Cash and cash equivalents and marketable securities	0	0	1,529	1,529	1,529
Total financial assets	22,824	2,048	7,901	32,773	32,773
Liabilities					
Amounts attributed to profit participation shareholders	14,189	0	0	14,189	14,189
Borrowings	30,132	0	0	30,132	31,476
Commodities sold with agreements to repurchase	484	0	0	484	484
Accounts payable	16,145	0	0	16,145	16,145
Other financial liabilities	0	0	8,066	8,066	8,066
Total financial liabilities	60,950	0	8,066	69,016	70,360

Notes:

(1) Carrying value comprises investments, loans, accounts receivable, accounts payable and other liabilities measured at amortised cost.

(2) FVtPL—Fair value through profit and loss—held for trading.

(3) Other investments contain U.S.$2,438 million in Level 1. As at 31 December 2009, U.S.$2,624 million of other investments were considered Level 3 valuations, which during 2010 U.S.$2,003 million were reclassified to Level 1 following UCR's listing on the Hong Kong Stock Exchange in January 2010 (see Note 7) and as a result of the Russneft debt amendment and restatement (see Note 8), U.S.$285 million of equity conversion advances were reclassified from other investments to non-current advances (a Level 2 fair value measurement) and the balance of the Russneft investment and the opening Level 3 valuation amount (U.S.$336 million) was impaired.

The following tables show the fair values of the derivative financial instruments including trade financial and physical forward purchase and sale commitments by type of contract as at 31 December 2008, 2009 and 2010. Fair values are primarily determined using quoted market prices or standard pricing models using observable market inputs where available and are presented to reflect the expected gross future cash in/outflows. Glencore classifies the fair values of its financial instruments into a three-level hierarchy based on the degree of the source and observability of the inputs that are used to derive the fair value of the financial asset or liability as follows:

Level 1: unadjusted quoted inputs in active markets for identical assets or liabilities; or

Level 2: inputs other than quoted inputs included in Level 1 that are directly or indirectly observable in the market; or

Level 3: unobservable market inputs or observable but cannot be market corroborated, requiring Glencore to make market-based assumptions.

Level 1 classifications primarily include futures with a tenor of less than one year and options that are exchange traded. Level 2 classifications primarily include futures with a tenor greater than one year, OTC options, swaps and physical forward transactions which derive their fair value primarily from exchange quotes and readily observable broker quotes. Level 3 classifications primarily include physical forward transactions which derive their fair value predominately from models that use broker quotes and applicable market-based estimates surrounding location, quality and credit differentials. In circumstances where Glencore cannot verify fair value with observable market inputs (Level 3 fair values), it is possible that a different valuation model could produce a materially different estimate of fair value.

It is Glencore's policy that transactions and activities in trade-related financial instruments be concluded under master netting agreements or long-form confirmations to enable balances due to/from a common counterparty to be offset in the event of default by the counterparty.

Other financial assets

2008	Level 1	Level 2	Level 3	Total
		(U.S.$ million)		
Commodity-related contracts				
Futures	1,218	7,319	0	8,537
Options	3	297	0	300
Swaps	0	875	0	875
Physical forwards	0	862	3,012	3,874
Financial contracts				
Cross currency swaps	0	95	0	95
Foreign currency and interest rate contracts	0	81	0	81
Total	1,221	9,529	3,012	13,762

2009	Level 1	Level 2	Level 3	Total
		(U.S.$ million)		
Commodity-related contracts				
Futures	1,838	947	0	2,785
Options	132	277	0	409
Swaps	193	394	0	587
Physical forwards	0	343	1,706	2,049
Financial contracts				
Cross currency swaps	0	246	0	246
Foreign currency and interest rate contracts	21	28	0	49
Total	2,184	2,235	1,706	6,125

2010	Level 1	Level 2	Level 3	Total
		(U.S.$ million)		
Commodity-related contracts				
Futures	1,168	628	0	1,796
Options	106	43	0	149
Swaps	174	471	0	645
Physical forwards	0	1,744	1,374	3,118
Financial contracts				
Cross currency swaps	0	149	0	149
Foreign currency and interest rate contracts	45	80	0	125
Total	1,493	3,115	1,374	5,982

Other financial liabilities

2008	Level 1	Level 2	Level 3	Total
		(U.S.$ million)		
Commodity-related contracts				
Futures	911	7,498	0	8,409
Options	0	848	56	904
Swaps	0	568	0	568
Physical forwards	0	358	2,510	2,868
Financial contracts				
Cross currency swaps	0	764	0	764
Foreign currency and interest rate contracts	0	78	0	78
Total	911	10,114	2,566	13,591

2009	Level 1	Level 2	Level 3	Total
		(U.S.$ million)		
Commodity-related contracts				
Futures	3,463	2,284	0	5,747
Options	144	333	88	565
Swaps	241	415	1	657
Physical forwards	0	249	1,025	1,274
Financial contracts				
Cross currency swaps	0	371	0	371
Foreign currency and interest rate contracts	19	10	0	29
Total	3,867	3,662	1,114	8,643

2010	Level 1	Level 2	Level 3	Total
		(U.S.$ million)		
Commodity-related contracts				
Futures	2,786	1,356	0	4,142
Options	25	70	99	194
Swaps	295	489	0	784
Physical forwards	0	1,199	1,019	2,218
Financial contracts				
Cross currency swaps	0	660	0	660
Foreign currency and interest rate contracts	37	31	0	68
Total	3,143	3,805	1,118	8,066

The following table shows the net changes in fair value of Level 3 other financial assets and other financial liabilities:

	Swaps	Physical forwards	Options	Total Level 3
		(U.S.$ million)		
1 January 2008	0	710	(12)	698
Total gain/(loss) recognised in cost of goods sold	0	(208)	(44)	(252)
31 December 2008	0	502	(56)	446
1 January 2009	0	502	(56)	446
Total gain/(loss) recognised in cost of goods sold	0	1,164	13	1,177
Sales	(1)	0	(101)	(102)
Realised	0	(985)	56	(929)
31 December 2009	(1)	681	(88)	592
1 January 2010	(1)	681	(88)	592
Total gain/(loss) recognised in cost of goods sold	2	(209)	(58)	(265)
Sales	0	0	(41)	(41)
Realised	(1)	(117)	88	(30)
31 December 2010	0	355	(99)	256

24 Future Commitments

Capital expenditure for the acquisition of property, plant and equipment is generally funded through the cash flow generated by the respective industrial entities. As at 31 December 2010, U.S.$787 million (2009: U.S.$815 million; 2008: U.S.$967 million), 100 per cent. of which relates to expenditure to be incurred over the next year (2009: 63 per cent.; 2008: 42 per cent.), was contractually committed for the acquisition of property, plant and equipment.

Certain of Glencore's exploration tenements and licences require it to spend a minimum amount per year on development activities, a significant portion of which would have been incurred in the ordinary course of operations. As at 31 December 2010, U.S.$404 million (2009: U.S.$284 million; 2008: U.S.$262 million) of such development expenditures are to be incurred, of which 36 per cent. are for commitments to be settled over the next year.

Glencore procures seagoing vessel/chartering services to meet its overall marketing objectives and commitments. At year end, Glencore has committed to future hire costs to meet future physical delivery and sale obligations and expectations of U.S.$2,608 million (2009: U.S.$2,185 million; 2008: U.S.$2,880 million) of which U.S.$325 million (2009: U.S.$272 million; 2008: U.S.$nil million) are with associated companies. 50 per cent. of these charters are for services to be received over the next two years.

As part of Glencore's ordinary sourcing and procurement of physical commodities and other ordinary marketing obligations, the selling party may request that a financial institution act as either (a) the paying party upon the delivery of product and qualifying documents through the issuance of a letter of credit or (b) the guarantor by way of issuing a bank guarantee accepting responsibility for Glencore's contractual obligations. As at 31 December 2010, U.S.$8,956 million (2009: U.S.$7,178 million; 2008: U.S.$5,450 million) of such commitments have been issued on behalf of Glencore, which will generally be settled with the payment for such commodity.

Glencore has entered into various operating leases mainly as lessee for office and warehouse/storage facilities. Rental expenses for these leases totalled, respectively, U.S.$62 million, U.S.$53 million and U.S.$66 million for the years ended 31 December 2008, 2009 and 2010. Future net minimum lease payments under non-cancellable operating leases are as follows:

	2008	2009	2010
	(U.S.$ million)		
Within one year	15	26	97
Between two and five years	47	51	225
After five years	110	93	151
Total	172	170	473

Future development and related commitments

Prodeco currently exports the majority of its coal through Puerto Zuñiga which operates under a private concession awarded by the Colombian government. The concession expired in March 2009; however, the Colombian government has continued to grant Prodeco the right to use the port under annual lease agreements. To comply with new government regulations on loading methods, which became effective from July 2010 and to alleviate itself from the uncertainty of the annual concession renewal process associated with Puerto Zuñiga, Prodeco has initiated the construction of a new, wholly owned, port facility (Puerto Nuevo) which is estimated to cost U.S.$520 million and be commissioned during the first half of 2013. If the concession does not continue to be extended, Prodeco's export capability would be curtailed, which could significantly impact operations until Puerto Nuevo is operational. As at 31 December 2010, U.S.$55 million of the estimated initial investment has been incurred.

In August 2010, Glencore acquired an ultimate 37.5 per cent. interest in the Kansuki concession ("Kansuki"), a 180 square kilometre copper and cobalt pre-development project which borders Glencore's partly-owned Mutanda concession in the DRC. In exchange, Glencore has (a) an obligation to finance the first U.S.$400 million of development related expenditures, if any, as and when such expenditure gets incurred, (b) the right to operate the operations and (c), a life of mine off-take agreement for all copper and cobalt produced by Kansuki. In addition, one of the partners in Kansuki has the right to sell an additional 18.75 per cent. ultimate interest to Glencore at the then calculated equity value of the operation, at the earlier of the date the operation produces a minimum annual 70,000 metric tonnes of copper and August 2013. Kansuki is currently completing its initial feasibility study for submission by June 2011. As at 31 December 2010, U.S.$11 million of development expenditure had been incurred.

In November 2010, Glencore and Blackthorn Resources Limited completed a joint venture agreement to develop the Perkoa Zinc Project ("Perkoa") located in Burkina Faso, West Africa. Under the terms of the agreement, Glencore will obtain a 50.1 per cent. effective ownership in Perkoa in exchange for (a) an obligation to finance the first U.S.$80 million of development related expenditures, if any, as and when such expenditure gets incurred, (b) the right to operate the operations and (c) a life of mine off-take agreement for all zinc produced by Perkoa. As at 31 December, 2010, U.S.$ nil million of development expenditure had been incurred.

25 Contingent Liabilities

The amount of corporate guarantees in favour of associated and third parties as at 31 December 2010, was U.S.$69 million (2009: U.S.$73 million and 2008: U.S.$66 million). Also see Note 7.

Litigation

Certain legal actions, other claims and unresolved disputes are pending against Glencore. Whilst Glencore cannot predict the results of any litigation, it believes that it has meritorious defenses against those actions or claims. Glencore believes the likelihood of any liability arising from these claims to be remote and that the liability, if any, resulting from any litigation will not have a material adverse effect on its consolidated income, financial position or cash flows.

Environmental contingencies

Glencore's operations, predominantly those arising from the ownership in industrial investments, are subject to various environmental laws and regulations. Glencore is in material compliance with those laws and regulations. Glencore accrues for environmental contingencies when such contingencies are probable and reasonably estimable. Such accruals are adjusted as new information develops or circumstances change. Recoveries of environmental remediation costs from insurance companies and other parties are recorded as assets when the recoveries are virtually certain. At this time, Glencore is unaware of any material environmental incidents at its locations.

Bolivian constitution

In 2009, the Government of Bolivia enacted a new constitution. One of the principles of the constitution requires mining entities to form joint ventures with the government. Glencore, through its subsidiary Sinchi Wayra, has, in good faith, entered into negotiations with the Bolivian government regarding this requirement. Whilst progress has been made, the final outcome and the timing thereof cannot be determined at this stage.

26 Related Party Transactions

In the normal course of business, Glencore enters into various arm's length transactions with related parties (primarily Xstrata), including fixed price commitments to sell and to purchase commodities, forward sale and purchase contracts, agency agreements and management service agreements. Outstanding balances at period end are unsecured and settlement occurs in cash (see Notes 8, 10, 13 and 19). There have been no guarantees provided or received for any related party receivables or payables.

Related party transactions, unless discussed elsewhere in the notes to the Historical Financial Information, are summarised below. The principal related parties are included in Notes 14 and 28. All transactions between Glencore and its subsidiaries are eliminated on consolidation along with any unrealised profits and losses between its subsidiaries and Associates.

2008	Associated companies	Parent companies	Total
		(U.S.$ million)	
Sales	786	0	786
Purchases	(9,153)	0	(9,153)
Interest income	16	2	18
Interest expense	(3)	0	(3)
Agency income	117	0	117
Agency expense	(4)	0	(4)

2009	Associated companies	Parent companies	Total
		(U.S.$ million)	
Sales	907	0	907
Purchases	(7,423)	0	(7,423)
Interest income	20	2	22
Interest expense	(2)	0	(2)
Agency income	51	0	51
Agency expense	(4)	0	(4)

2010	Associated companies	Parent companies	Total
		(U.S.$ million)	
Sales	1,086	0	1,086
Purchases	(9,472)	0	(9,472)
Interest income	32	2	34
Interest expense	(1)	0	(1)
Agency income	82	0	82
Agency expense	(5)	0	(5)

Remuneration of key management personnel

The remuneration of directors and other members of key management personnel recognised in the statement of income, including salaries and other current employee benefits amounted to U.S.$146 million (2009: U.S.$148 million; 2008: U.S.$149 million) and amounts attributable to profit participation amounts are U.S.$938 million (2009: U.S.$291 million; 2008: U.S.$242 million). As at 31 December 2010, included in the amounts attributable to profit participation shareholders are U.S.$6,130 million (2009: U.S.$5,192 million; 2008: U.S.$4,901 million).

27 Subsequent Events

Subsequent to year end, the following significant events occurred:

In January, Glencore issued CHF 225 million (U.S.$235 million) 3.625 per cent. interest-bearing bonds due April 2016, increasing the size of this CHF bond series to CHF 825 million. The proceeds from this bond issue (plus U.S.$65 million in cash on hand) were used to redeem U.S.$300 million of the U.S.$700 million 8 per cent. perpetual notes.

In February 2011, Glencore concluded a new one year committed U.S.$600 million European oil receivables borrowing base facility.

In April 2011, Glencore agreed with Verny to acquire additional stakes in Kazzinc. These purchases will increase its ownership from 50.7 per cent. to 93.0 per cent. for a total transaction consideration of $3.2 billion. Subject to the satisfaction of certain conditions (including Glencore completing the International Offer and obtaining applicable regulatory approvals), the consideration will be settled through the issuance of U.S.$1 billion of Ordinary Shares at the Offer Price and U.S.$2.2 billion in cash (to be paid in tranches between October and December 2011). The acquisition, if completed, will be accounted for under IAS 27 *Consolidated and Separate Financial Statements* as an equity transaction (a transaction with owners in their capacity as owners) and on the date of completion will result in a net decrease in total equity on Glencore's consolidated statement of financial position of U.S.$2.2 billion equating to the cash component of the consideration. There will be no change to the underlying assets and liabilities of Kazzinc in Glencore's consolidated statement of financial position. Following the date of closing an additional 42.3 per cent. of Kazzinc's income thereafter will be attributable to equity holders of Glencore with the remaining 7 per cent. being attributed to the non controlling interests in Kazzinc.

On 3 May 2011, Glencore replaced the previous 364 day U.S.$1,375 million and the U.S.$515 million Asian focused tranche revolving credit facilities with two new 364 day revolving credit facilities for U.S.$2,925 million and U.S.$610 million, both with a one year extension option at the borrower's discretion. In addition, Glencore extended the final maturity of U.S.$8,340 million of the U.S.$8,370 million medium term revolver for a further year to May 2014. In aggregate, the three tranches represent an increase in committed available liquidity of U.S.$1,645 million.

28 List of Principal Operating, Finance and Industrial Subsidiaries and Investments

	Method of Consolidation in 2010[1]	Country of incorporation	% interest 2008	% interest 2009	% interest 2010	Main activity
Glencore International AG	P	Switzerland				Operating
Glencore AG	F	Switzerland	100.0	100.0	100.0	Operating
Allied Alumina Inc. (Sherwin Alumina)	F	United States	100.0	100.0	100.0	Alumina production
Columbia Falls Aluminum Company	F	United States	100.0	100.0	100.0	Aluminium production
Century Aluminum Company	E	United States	47.0[2]	44.1[2]	44.0[2]	Aluminium production
Glencore Funding LLC	F	United States	100.0	100.0	100.0	Finance
East Tennessee Zinc Company LLC	F	United States	100.0	0.0	0.0	Zinc production
Glencore UK Ltd	F	U.K.	100.0	100.0	100.0	Operating
Glencore Commodities Ltd	F	U.K.	100.0	100.0	100.0	Operating
Glencore Energy UK Ltd	F	U.K.	100.0	100.0	100.0	Operating
Glencore Group Funding Limited	F	UAE	100.0	100.0	100.0	Finance
Glencore Finance (Bermuda) Ltd	F	Bermuda	100.0	100.0	100.0	Finance
AR Zinc Group	F	Argentina	100.0	100.0	100.0	Zinc/Lead production
Empresa Minera Los Quenuales S.A.	F	Peru	97.1	97.1	97.1	Zinc/Lead production
Glencore Exploration (EG) Ltd.	F	Bermuda	100.0	100.0	100.0	Oil exploration/development
Glencore Finance (Europe) S.A.	F	Luxembourg	100.0	100.0	100.0	Finance
Kansuki Group	E	DRC	0.0	0.0	37.5	Copper production
Minera Altos de Punitaqui	F	Chile	0.0	0.0	100.0	Copper production
Mopani Copper Mines PLC	F	Zambia	73.1	73.1	73.1	Copper production
Mutanda Group	E	DRC	40.0	40.0	40.0	Copper production
Prodeco Group	F	Colombia	100.0	100.0	100.0	Coal production
Recylex S.A.	E	France	32.2	32.2	32.2	Zinc/Lead production
Sinchi Wayra	F	Bolivia	100.0	100.0	100.0	Zinc/Tin production
Refineria de Cartagena S.A.	E	Colombia	51.0	0.0	0.0	Oil refining
United Company Rusal Plc	O	Jersey	10.3	9.7	8.8	Aluminum production
Finges Investment B.V.	F	Netherlands	100.0	100.0	100.0	Finance
Biopetrol Industries AG[3]	F	Switzerland	0.0	0.0	60.3	Biodiesel production
Glencore Grain B.V	F	Netherlands	100.0	100.0	100.0	Operating
Nyrstar N.V.	O	Belgium	0.0	7.8	7.8	Zinc production
Rio Vermelho	F	Brazil	0.0	0.0	76.0	Sugar cane/ethanol production
Xstrata plc	E	U.K.	35.2	34.9	34.5	Diversified production
Chemoil Energy Limited[4]	F	Singapore	0.0	0.0	51.5	Oil storage
Cobar Group	F	Australia	100.0	100.0	100.0	Copper production
Glencore Singapore Pte Ltd	F	Singapore	100.0	100.0	100.0	Operating
Kazzinc Ltd.	F	Kazakhstan	69.0	69.0	50.7	Zinc/Lead production
Vasilkovskoje Gold	F	Kazakhstan	40.0	40.0	100.0	Gold production
Katanga Mining Limited[5]	F	Bermuda	8.5	69.2	74.4	Copper production
Murrin Murrin Joint Venture[6]	F	Australia	40.0	40.0	40.0	Nickel production
Minara Resources Ltd[6]	F	Australia	70.6	70.6	70.6	Nickel production
Moreno Group	F	Argentina	100.0	100.0	100.0	Edible oils production
Pacorini Group	F	Switzerland	0.0	0.0	100.0	Metals warehousing
Pasar Group	F	Philippines	78.2	78.2	78.2	Copper production
Polymet Mining Corp.	O	Canada	0.0	2.6	6.3	Copper production
Portovesme S.r.L.	F	Italy	100.0	100.0	100.0	Zinc/Lead production
Russneft Group (various companies)[7]	O	Russia	40.0-49.0	40.0-49.0	40.0-49.0	Oil production
Shanduka Coal (Pty) Ltd	F	South Africa	70.0	70.0	70.0	Coal production
ST Shipping & Transport Pte Ltd	F	Singapore	100.0	100.0	100.0	Operating
Topley Corporation	F	B.V.I.	100.0	100.0	100.0	Ship owner
Volcan Compania Minera S.A.A.	O	Peru	4.1	4.1	4.1	Zinc production

Notes:

(1) P = Parent; F = Full consolidation; E = Equity method; O = Other investment.

(2) Represents Glencore's economic interest in Century, comprising 39.1 per cent. (2009: 39.1 per cent.; 2008: 28.5 per cent.) voting interest and 4.9 per cent. (2009: 5 per cent.; 2008: 18.5 per cent.) non-voting interest.

(3) Publicly traded on the Frankfurt Stock Exchange under the symbol A0HNQ5. Glencore owns 46,812,601 shares.

(4) Publicly traded on the Singapore Exchange under the symbol CHEL.SI. Glencore owns 666,204,594 shares.

(5) Publicly traded on the Toronto Stock Exchange under the symbol KAT.TO. Glencore owns 1,419,031,161 shares.

(6) The balance of the joint venture is held by Minara Resources Ltd, giving Glencore an effective interest of 82.4 per cent. in the joint venture.

(7) Publicly traded on the Australian Stock Exchange under symbol MER.AX. Glencore owns 824,829,760 shares.

(8) Although Glencore holds more than 20 per cent. of the voting rights, it has limited key management influence and thus does not exercise significant influence.

Deloitte.

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Morgan Stanley Asia Limited
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1 Austin Road West
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Hong Kong

4 May 2011

Dear Sirs

Glencore International plc (the "Company")

We report on the pro forma financial information (the "Pro forma financial information") in respect of Glencore International AG (the "Operating Company") and its subsidiaries (together with the Operating Company, the "Operating Group") set out in Section VII: "Unaudited Pro-Forma Financial Information" of the prospectus dated 4 May 2011 of Glencore International plc (the "Company") prepared in connection with the Company's admission to listing on the premium segment of the Official List of the Financial Services Authority and admission to trading on the London Stock Exchange of the ordinary shares of the Company (the "UK Listing") (the "UK Prospectus") and having regard to the waivers granted by the Stock Exchange of Hong Kong Limited ("HKSE") in connection with the secondary listing of the ordinary shares of the Company on the Main Board of the HKSE (the "HK Listing") (the "HK Prospectus"), (the UK Prospectus and HK Prospectus together being the "Investment Circular") which has been prepared on the basis described in notes 1 to 5, for illustrative purposes only, to provide

information about how the transaction might have affected the financial information presented on the basis of the accounting policies to be adopted by the Company in preparing the financial statements for the period ended 31 December 2011. It is intended that the Company will acquire the entire issued share capital of the Operating Company prior to the implementation of the UK Listing. The Pro Forma Financial Information is therefore based on the consolidated audited historical financial information of the Operating Group at 31 December 2010 contained in Section VI: "Historical Financial Information" of the Investment Circular. No adjustments have been made to reflect the results or any other activity of the Operating Group since 31 December 2010. This report is required by Annex I item 20.2 of Commission Regulation (EC) No 809/2004 (the "Prospectus Directive Regulation"), and is given for the purpose of complying with that requirement and for no other purpose.

Responsibilities

It is the responsibility of the directors of the Company (the "Directors") to prepare the pro forma financial information in accordance with Annex I item 20.2 and Annex II items 1 to 6 of the Prospectus Directive Regulation.

It is our responsibility to form an opinion, in accordance with Annex I item 20.2 of the Prospectus Directive Regulation, as to the proper compilation of the pro forma financial information and to report that opinion to you in accordance with Annex II item 7 of the Prospectus Directive Regulation.

Save for any responsibility arising under Prospectus Rule 5.5.3R (2)(f), Chapter 4 of the HKSE Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (the "HK Listing Rules") and the Companies Ordinance (Cap. 32) of the Laws of Hong Kong (the "Companies Ordinance"), except where waivers have been granted by the HKSE to any person as and to the extent there provided, to the fullest extent permitted by law we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in accordance with this report or our statement, required by and given solely for the purposes of complying with Annex I item 23.1 of the Prospectus Directive Regulation, and consenting to its inclusion in the Prospectus.

Our responsibilities in relation to the UK Prospectus relate only to the UK Listing and our responsibilities in relation to the Hong Kong Prospectus relate only to the Hong Kong Listing.

In providing this opinion we are not updating or refreshing any reports or opinions previously made by us on any financial information used in the compilation of the pro forma financial information, nor do we accept responsibility for such reports or opinions beyond that owed to those to whom those reports or opinions were addressed by us at the dates of their issue.

Basis of Opinion

We conducted our work in accordance with the Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. The work that we performed for the purpose of making this report, 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.

We planned and performed our work so as to obtain the information and explanations we considered necessary in order to provide us with reasonable assurance that the pro forma financial information has been properly compiled on the basis stated and that such basis is consistent with the accounting policies of the Company.

Our work has not been carried out in accordance with auditing or other standards and practices generally accepted in jurisdictions outside the United Kingdom, including the United States of America, and accordingly should not be relied upon as if it had been carried out in accordance with those standards or practices.

Opinion

In our opinion:

(a) the pro forma financial information has been properly compiled on the basis stated; and

(b) such basis is consistent with the accounting policies of the Company.

Declaration

For the purposes of Prospectus Rule 5.5.3R(2)(f), we are responsible for this report as part of the UK Prospectus and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the UK Prospectus in compliance with Annex I item 1.2 of the Prospectus Directive Regulation.

Yours faithfully

Deloitte LLP
Chartered Accountants

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 2 New Street Square, London EC4A 3BZ, United Kingdom. Deloitte LLP is the United Kingdom member firm of Deloitte Touche Tohmatsu Limited ("DTTL"), a UK private company limited by guarantee, whose member firms are legally separate and independent entities. Please see www.deloitte.co.uk/about for a detailed description of the legal structure of DTTL and its member firms.

Member of Deloitte Touche Tohmatsu Limited

SUB-SECTION B: UNAUDITED PRO FORMA NET ASSETS STATEMENT

The unaudited pro forma statement of net assets has been prepared to illustrate the effect of the Global Offer on the net assets of the Company as if the Global Offer had taken place on 31 December 2010. The unaudited pro forma statement of net assets has been prepared for illustrative purposes only and, because of its nature, addresses a hypothetical situation and therefore does not reflect the Glencore Group's actual financial position or results.

The unaudited pro forma statement of net assets is based on the consolidated audited historical balance sheet of the Glencore Group at 31 December 2010 contained in Section VI: "Historical Financial Information" of the Prospectus and has been prepared in a manner consistent with the accounting policies adopted by the Company in preparing such information. The unaudited pro forma statement of net assets is complied on the basis set out in the notes below and in accordance with the requirements of item 20.2 of Annex I and items 1 to 6 of Annex II to the Prospectus Rules. No adjustment has been made to reflect the results or any other activity of the Glencore Group since 31 December 2010.

			Adjustments		
	Glencore International Plc unaudited net assets as at 14 March 2011[1]	**Glencore audited net assets as at 31 December 2010[2]**	**Global Offer proceeds[3]**	**Crystallisation of tax items[4]**	**Pro forma net assets as at 31 December 2010[6]**
			(U.S.$ million)		
Assets					
Non-current assets					
Property, plant and equipment	0	12,088	0	0	12,088
Investments in associates and jointly controlled entities	0	16,766	0	0	16,766
Other investments	0	2,438	0	0	2,438
Advances and loans	0	3,830	0	0	3,830
Deferred tax assets	0	369	0	444	813
Total non-current assets	0	35,491	0	444	35,935
Current assets					
Inventories	0	17,393	0	0	17,393
Accounts receivable	0	18,994	0	0	18,994
Other financial assets	0	5,982	0	0	5,982
Prepaid expenses and other assets	0	118	0	0	118
Marketable securities	0	66	0	0	66
Cash and cash equivalents	0	1,463	7,456	0	8,919
Assets held for sale	0	280	0	0	280
Total current assets	0	44,296	7,456	0	51,752
Total assets	0	79,787	7,456	444	87,687

	Glencore International Plc unaudited net assets as at 14 March 2011[1]	Adjustments: Glencore audited net assets as at 31 December 2010[2]	Adjustments: Global Offer proceeds[3]	Adjustments: Crystallisation of tax items[4]	Pro forma net assets as at 31 December 2010[6]
			(U.S.$ million)		
Non-current liabilities					
Borrowings	0	18,251	0	0	18,251
Deferred income	0	164	0	0	164
Deferred tax liabilities	0	1,308	0	0	1,308
Provisions	0	719	0	0	719
Total non-current liabilities	0	20,442	0	0	20,442
Current liabilities					
Borrowings	0	11,881	0	0	11,881
Commodities sold with agreements to repurchase	0	484	0	0	484
Accounts payable	0	16,145	0	0	16,145
Other financial liabilities	0	8,066	0	0	8,066
Income tax payable	0	217	0	0	217
Liabilities held for sale	0	45	0	0	45
Total current liabilities	0	36,838	0	0	36,838
Total liabilities	0	57,280	0	0	57,280
Net assets	0	22,507	7,456	444	30,407

Notes:

(1) Glencore International plc was incorporated on 14 March 2011 and will be the new holding company for the Glencore Group at UK Admission. Since incorporation, it has not traded, has not entered into any transactions and has no material equity or reserves. No financial information for Glencore International plc has been audited.

(2) The consolidated net assets of Glencore International AG as at 31 December 2010 have been extracted without material adjustment from the audited historical financial information of the Glencore Group, as set out in Section VI: "Historical Financial Information".

(3) The estimated net proceeds of the Global Offer are calculated based on an assumed Offer Price of U.S.$8.83 (being the U.S.$ equivalent of the mid-point of the Offer Price Range), after deduction of underwriting fees and other related costs and expenses, and takes no account of any Ordinary Shares which may be issued upon exercise of the Over-Allotment Option, as follows:

Gross proceeds from the Global Offer	U.S.$7,891 million
Costs and expenses (including taxes) of the Global Offer	U.S.$435 million
Net proceeds from the Global Offer	U.S.$7,456 million

(4) Prior to the Restructuring, Glencore International was entitled to Swiss tax deductions in respect of the profit participating certificates held by employees. As a result of the Restructuring, employees will cease to hold the profit participating certificates. The Restructuring will crystallise Swiss tax deductions of U.S.$4,785 million and will result in a deferred tax asset in Glencore International with a value of U.S.$444 million (net of other tax adjustments).

(5) The consideration for the Kazzinc Tranche 1 Acquisition and the Kazzinc Tranche 2 Acquisition (respectively U.S$1.0 billion of Ordinary Shares at the Offer Price and US$2.2 billion of cash) have not been included in the pro forma statement of net assets as they are subject to certain conditions including receipt of applicable regulatory approvals. The acquisition, if completed, will result in a net decrease in net assets of U.S.$2.2 billion equating to the cash component of the consideration. There would be no impact on pro forma net assets arising from the consideration to be satisfied by the issuance of the U.S.$1 billion of Ordinary Shares at the Offer Price.

(6) Save for the adjustment for the net proceeds of the Global Offer and for the deferred tax assets arising from the Restructiring as described in Notes 3 and 4 above respectively, no adjustment has been made to reflect the trading results or any other transaction of the Glencore Group since 31 December 2010.

SECTION VIII: DETAILS OF THE GLOBAL OFFER

1 Structure of the Global Offer

This Prospectus is published in connection with the Global Offer. Citi and Morgan Stanley are the Joint Sponsors in relation to UK Admission. Citigroup Global Markets U.K. Equity Limited, Morgan Stanley and Credit Suisse are the Joint Global Co-ordinators of the Global Offer. BNP Paribas, Citigroup Global Markets U.K. Equity Limited, Credit Suisse, Merrill Lynch and MSSL have been appointed as Joint Bookrunners in relation to the International Offer. Citi Asia and Morgan Stanley Asia are the Joint Sponsors in relation to HK Admission. BNP Paribas, Citi Asia, Credit Suisse Asia, Merrill Lynch Asia and Morgan Stanley Asia are the HK Joint Bookrunners of the Hong Kong Offer. The Global Offer comprises:

(a) the International Offer: the making available of up to 1,218,750,000 Ordinary Shares (subject to adjustment as described below and assuming that the Over-Allotment Option is not exercised), being the International Offer Shares, to qualified investors in certain Member States, including to institutional investors in the United Kingdom and Hong Kong and to certain other institutional investors outside the U.S. in reliance on Rule 144A or another exemption from, or transaction not subject to, the registration requirements of the Securities Act; and

(b) the Hong Kong Offer: the making available of 31,250,000 Ordinary Shares (subject to adjustment as described below), being the Hong Kong Offer Shares, to the public and professional investors in Hong Kong.

Based on the assumptions referred to below, the Offer Shares which are the subject of the Global Offer are expected to comprise:

- an issue by the Company of 893,292,886 new Ordinary Shares, representing 12.9 per cent. of the expected issued Ordinary Share capital of the Company immediately following Admission, based on an Offer Price at the mid-point of the Offer Price Range and assuming the Over-Allotment Option is not exercised and no Kazzinc Consideration Shares have been issued; and
- the sale by the Selling Shareholder of 238,782,586 existing Ordinary Shares (such Ordinary Shares to be sold in the International Offer only, representing 3.5 per cent. of the expected issued Ordinary Share capital of the Company immediately following Admission, based on an Offer Price at the mid-point of the Offer Price Range and assuming the Over-Allotment Option is not exercised and no Kazzinc Consideration Shares have been issued.

Pursuant to the Global Offer, the Company intends to raise net proceeds of approximately U.S.$7,456 million, net of underwriting commissions, other estimated fees and expenses and Swiss federal issuance stamp tax payable in connection with Restructuring and the Global Offer, by the issue of 893,292,886 new Ordinary Shares (assuming that the Offer Price is at the mid-point of the Offer Price Range and the Over-Allotment Option is not exercised).

Prior to UK Admission, the Sale Shares will be sold to the Selling Shareholder in order to facilitate the sale of the Sale Shares in the Global Offer. The net proceeds of sale of the Sale Shares in the Global Offer will be received by the Selling Shareholder and paid to Existing Shareholders to enable those Existing Shareholders to meet their tax liabilities and to repay a small tranche of outstanding loans extended by companies within the Glencore Group.

In certain jurisdictions, the Group has a primary obligation to settle tax liabilities on behalf of Existing Shareholders in connection with the Global Offer. The Company will recover amounts paid or to be paid by companies within the Glencore Group under these obligations, as well as amounts owed to companies within the Glencore Group under the small tranche of loans as referred to above, from the proceeds of sale of the Sale Shares.

An aggregate amount of approximately U.S.$2,072 million, net of underwriting commissions, will be raised in the Global Offer by the sale of the Sale Shares by the Selling Shareholder in the International Offer (assuming that the Offer Price is at the mid-point of the Offer Price Range). Save as set out above, the Company will not receive any portion of net proceeds from the sale of the Sale Shares by the Selling Shareholder.

The Selling Shareholder has been incorporated for the purpose of aggregating the Sale Shares and selling them in the International Offer. The Selling Shareholder is expected to have fulfilled its

obligations in respect of the Sale Shares and their sale in the International Offer at or immediately after UK Admission.

The Global Offer will be fully underwritten by the Underwriters in accordance with the terms of the Underwriting Agreement, including the satisfaction of the conditions set out therein (including UK Admission becoming effective by no later than 8.00 a.m. on 24 May 2011 or such later time and/or date as the Company and the Joint Global Co-ordinators may agree, the Restructuring having been completed in accordance with all material terms, and the Company, the Selling Shareholder and the Underwriters agreeing to enter into a Pricing Agreement) and in accordance with their respective commitments as set out in the Underwriting Agreement. The International Managers may arrange sub-underwriting for some, all or none of the Offer Shares. See paragraph 4 of this Section VIII below.

Certain restrictions that apply to the distribution of this Prospectus and the Ordinary Shares being issued and sold under the Global Offer in jurisdictions outside the United Kingdom are described in paragraph 12 of this Section VIII below.

The terms of the Global Offer are subject to change, and any terms to be varied shall be agreed between the Company (through its Board), the Selling Shareholder and the Joint Global Co-ordinators (on behalf of the Banks).

In particular, in the event that the Company, the Selling Shareholder and the Joint Global Co-ordinators (on behalf of the Banks) decide following the date of this Prospectus not to proceed with the Hong Kong Offer, the parties reserve the right to proceed with the International Offer only and the Hong Kong Offer Shares may be made available in the International Offer on the basis of the information contained in this Prospectus as described below.

The Company, in consultation with the Joint Global Co-ordinators, reserves the right at any stage from the date of this Prospectus up until mid-day (Hong Kong time) on the business day before the publication of the Hong Kong Prospectus, not to proceed with HK Admission and/or the Hong Kong Offer. Should the Company decide not to proceed with HK Admission and/or the Hong Kong Offer, no supplemental prospectus will be issued by the Company and the Global Offer will proceed on the basis of the International Offer and UK Admission only. In addition, the Company and the Joint Global Co-ordinators will consider the ability to upsize the International Offer with some or all of the Ordinary Shares which the Company was reserving for the Hong Kong Offer. If applicable, the Company will communicate this proposed upsizing of the International Offer to each applicant who has applied for Ordinary Shares in the International Offer. Such applicants will be able to apply for such additional Ordinary Shares up until the Price Determination Date. The Company would then announce the final size of the International Offer in the Pricing Statement which is expected to be published on or around 19 May 2011.

In this situation, all references in this document to HK Admission, the Hong Kong Offer and/or Hong Kong Offer Shares, Hong Kong Offer Price and HK Sponsors (and the times and dates relating thereto) should be disregarded.

1.1 **The International Offer**

1.1.1 **Allocation**

The Underwriters will solicit from prospective investors indications of interest in acquiring Ordinary Shares under the International Offer. Prospective investors will be required to specify the number of International Offer Shares which they would be prepared to acquire either at specified prices or at the Offer Price (as finally determined). Subject to the Joint Global Co-ordinators and the Company determining allocations, there is no minimum or maximum number of International Offer Shares which can be applied for. The Company and the Joint Global Co-ordinators shall together discuss and agree the final book of demand for, and allocations of, the International Offer Shares.

1.1.2 **Reallocation of Offer Shares between the International Offer and the Hong Kong Offer**

The total number of International Offer Shares to be made available pursuant to the International Offer may change as a result of the clawback arrangement and/or any reallocation of unsubscribed Hong Kong Offer Shares as described in paragraph 1.2.2 below. As set out in paragraph 1.2.2 below, the Company has received approval from the

HKSE for a claw back mechanism for the Hong Kong Offer that limits the number of Ordinary Shares that can be allocated to investors in the Hong Kong Offer to 10 per cent. of the maximum number of Ordinary Shares to be issued and sold in the Global Offer.

1.2 **The Hong Kong Offer**

The Hong Kong Offer forms part of the Global Offer, and comprises an aggregate of 31,250,000 Hong Kong Offer Shares (subject to adjustment as described below) being made available to the public and professional investors in Hong Kong at the Hong Kong Offer Price, representing approximately 2.5 per cent. of the maximum number of Offer Shares initially available under the Global Offer (assuming the Over-Allotment Option is not exercised). Subject to the reallocation of Offer Shares between the International Offer and the Hong Kong Offer as described below, the Hong Kong Offer Shares are expected to represent (i) approximately 0.45 per cent. of the Company's enlarged issued share capital immediately after completion of the Global Offer, without taking into account the exercise of the Over-Allotment Option, or (ii) if the Over-Allotment Option is exercised in full, approximately 0.45 per cent. of the enlarged issued share capital immediately after the completion of the Global Offer and the exercise of the Over-Allotment Option, in each case based on an Offer Price at the mid-point of the Offer Price Range.

The Hong Kong Offer is open to members of the public in Hong Kong and professional investors. Professional investors generally include brokers, dealers, companies (including fund managers), whose ordinary business involves dealing in shares and other securities, and corporate entities that regularly invest in shares and other securities.

1.2.1 **Allocation**

Allocation of Hong Kong Offer Shares to investors under the Hong Kong Offer will be based solely on the level of valid applications received under the Hong Kong Offer.

The basis of allocation may vary, depending on the number of Hong Kong Offer Shares validly applied for by applicants. Such allocation could, where appropriate, consist of balloting, which could mean that some applicants may receive a higher allocation than others who have applied for the same number of Hong Kong Offer Shares, and those applicants who are not successful in the ballot may not receive any Hong Kong Offer Shares.

1.2.2 **Reallocation of Offer Shares between the Hong Kong Offer and the International Offer**

The allocation of the Hong Kong Offer Shares between the Hong Kong Offer and the International Offer is subject to adjustment under the Hong Kong Listing Rules. The Company has applied for, and the Hong Kong Stock Exchange has granted, a waiver from strict compliance with the clawback requirements set out in paragraph 4.2 of Practice Note 18 to the Hong Kong Listing Rules on the following basis. If the number of Offer Shares validly applied for under the Hong Kong Offer represents (i) 15 times or more but less than 50 times, (ii) 50 times or more but less than 100 times, and (iii) 100 times or more of the number of Offer Shares initially available under the Hong Kong Offer, then Offer Shares will be reallocated to the Hong Kong Offer from the International Offer. As a result of such reallocation, the total number of Offer Shares available under the Hong Kong Offer will be increased to 46,875,000 Offer Shares (in the case of (i)), 62,500,000 Offer Shares (in the case of (ii)) and 125,000,000 Offer Shares (in the case of (iii)), representing approximately 3.75 per cent., 5 per cent. and 10 per cent. of the maximum number of Offer Shares initially available under the Global Offer assuming the Over-Allotment Option is not exercised). In addition to the foregoing, the Joint Global Co-ordinators and the Company may together discuss and agree that International Offer Shares be reallocated to the Hong Kong Offer to satisfy valid applications thereunder.

In addition, if the Hong Kong Offer is not fully subscribed for, the Joint Global Co-ordinators and the Company may together discuss and agree that the unsubscribed Hong Kong Offer Shares be reallocated to the International Offer, in such proportions as they deem appropriate.

As mentioned above, should the Company decide not to proceed with HK Admission and/or the Hong Kong Offer it may, in consultation with the Joint Global Co-ordinators,

upsize the International Offer with some or all of the Ordinary Shares which it is reserving for the Hong Kong Offer.

In this situation, all references in this document to HK Admission, the Hong Kong Offer and/or Hong Kong Offer Shares, Hong Kong Offer Price and HK Sponsors (and the times and dates relating thereto) should be disregarded and the Hong Kong Offer Shares will be made available in the International Offer on the basis of the information contained in this Prospectus.

2 Stabilisation and over-allotment

In connection with the Global Offer, MSSL, as Stabilising Manager, or any of its affiliates, delegates or agents, may (but will be under no obligation to), to the extent permitted by applicable law, over-allot Ordinary Shares or effect other stabilisation transactions with a view to supporting the market price of the Ordinary Shares at a higher level than that which might otherwise prevail in the open market. The Stabilising Manager is not required to enter into such transactions and such stabilisation transactions may be effected on any securities market, over-the-counter market, stock exchange or otherwise and may be undertaken at any time during the period commencing on the date of the commencement of conditional dealings in the Ordinary Shares on the London Stock Exchange and ending no later than 30 calendar days thereafter (or in respect of any stabilisation action undertaken in Hong Kong, ending at such time in accordance with applicable laws and regulatory requirements). However, there will be no obligation on the Stabilising Manager or any of its affiliates, delegates or agents to effect such transactions and there is no assurance that such transactions will be undertaken. Such stabilisation, if commenced, may be discontinued at any time without prior notice. In no event will measures be taken to stabilise the market price of the Ordinary Shares above the Offer Price. The details of any intended stabilisation to be undertaken in Hong Kong and how it will be regulated under the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) will be contained in a prospectus expected to be published in relation to the Hong Kong Offer. Except as required by law or regulation, neither the Stabilising Manager nor any of its affiliates, delegates or agents intends to disclose the extent of any over-allotments made and/or stabilisation transactions conducted in relation to the Global Offer.

In connection with the Global Offer, the Stabilising Manager may, for stabilisation purposes, over-allot the Ordinary Shares up to a maximum of ten per cent. of the Offer Shares at the Offer Price. For the purposes of allowing the Stabilising Manager to cover short positions resulting from any such over-allotments and/or from sales of Ordinary Shares effected by it during the stabilising period, the Company has granted to it the Over-Allotment Option. Any Over-Allotment Shares made available pursuant to the Over-Allotment Option will rank *pari passu* in all respects with the Ordinary Shares, including for all dividends, and other distributions declared, made or paid on the Ordinary Shares will be subscribed for on the same terms and conditions as the Ordinary Shares being issued or sold in the Global Offer and will form a single class for all purposes with the other Ordinary Shares.

3 Pricing

Pricing for the Offer Shares will be fixed on the Price Determination Date, which is expected to be on or around 18 May 2011 by agreement between the Joint Global Co-ordinators (on behalf of the Underwriters) and the Company, and the number of Offer Shares to be allocated under the International Offer and the Hong Kong Offer will be determined shortly thereafter at the discretion of the Joint Global Co-ordinators, following consultation with the Company. A Pricing Statement, which will contain the Offer Price, is expected to be published by the Company on or around 19 May 2011.

It is currently expected that the Offer Price will be within the Offer Price Range, but this range is indicative only and the Offer Price may be set within, above or below it. A number of factors will be considered in deciding the Offer Price including the level and the nature of the demand for Ordinary Shares and the objective of encouraging the development of an orderly and liquid after-market in the Ordinary Shares. The Offer Price will be established at a level determined in accordance with these arrangements, taking into account indications of interest received (whether before or after the times and/or dates stated) from persons (including market-makers and fund managers) connected with the Banks. If the Offer Price Range changes prior to the announcement of the final Offer Price, the

revised Offer Price Range will be announced and advertised as soon as possible and the Company will publish a supplementary prospectus and each applicant may exercise their withdrawal rights as set out in "Withdrawal Rights" below.

The Company will determine the aggregate number of Offer Shares, the number of New Offer Shares and the number of Sale Shares in light of the determination of the Offer Price on the Price Determination Date. In the Global Offer, the Company and the Selling Shareholder together intend to raise aggregate gross proceeds equivalent to approximately U.S.$10 billion at exchange rates prevailing at the Price Determination Date. The number of Sale Shares will be determined by the Company and the Selling Shareholder by reference to the Offer Price, exchange rates prevailing at the Price Determination Date, and the aggregate amount of the expected tax liabilities and loan repayments of Existing Shareholders. The number of New Offer Shares will be determined so as to provide the balance of the intended aggregate gross proceeds of the Global Offer. The Company and the Selling Shareholder also reserve the right to increase or decrease the intended aggregate gross proceeds amount, subject to no more than 1,250,000,000 Ordinary Shares being issued and/or sold in the Global Offer. The aggregate number of Offer Shares, the number of Sale Shares and the number of New Offer Shares will each be set out in the Pricing Statement.

4 Underwriting Agreement

On 4 May 2011, the Company, Glencore International, the Directors, the Selling Shareholder and the Banks entered into an underwriting agreement (the "Underwriting Agreement") relating to the Global Offer. Pursuant to the Underwriting Agreement, subject to, inter alia, execution of the Pricing Agreement by 18 May 2011 (or such later time and date as the Company, the Selling Shareholder and the Joint Global Co-ordinators (on behalf of the Banks) may agree being no later than 15 July 2011) and UK Admission becoming effective no later than 8.00 a.m. on 24 May 2011 (or such later time and date as the Company, the Selling Shareholder and the Joint Global Co-ordinators (on behalf of the Banks) may agree being no later than 31 July 2011) and the satisfaction of certain other conditions, including completion of the Restructuring in all material respects:

4.1 the International Managers have severally agreed to procure subscribers or purchasers for, failing which to subscribe or purchase the International Offer Shares from the Company and the Selling Shareholder at the Offer Price and in such proportions set out in the Underwriting Agreement; and

4.2 the HK Managers have severally agreed to procure subscribers, failing which to subscribe themselves, for all of the Hong Kong Offer Shares at the Offer Price and in such proportions as set out in the Underwriting Agreement;

The Underwriting Agreement also provides for the following (in each case, together with any applicable VAT thereon) to be payable by: (i) the Company to the Underwriters, comprising a commission, in aggregate, of 1.75 per cent. of an amount equal to the product of the Offer Price and the aggregate number of New Offer Shares issued pursuant to the Global Offer and any Over-Allotment Shares issued and delivered following exercise of the Over-Allotment Option; and (ii) the Selling Shareholder to the Underwriters, comprising a commission, in aggregate, of 1.75 per cent. of an amount equal to the product of the Offer Price and the aggregate number of Sale Shares sold pursuant to the International Offer. The Company may also in its absolute discretion pay to the Underwriters (in such proportions as the Company may, in its sole discretion, direct) a further commission of up to U.S.$82.5 million. Any commissions received by the Underwriters may be retained, and any Ordinary Shares acquired by any Underwriter may be retained or dealt in by it, for its own benefit. In addition to these commissions, the Company has agreed to pay, or cause to be paid (together with, in each case, any related VAT) (whether or not the Banks' obligations under the Underwriting Agreement become unconditional or are terminated) certain reasonably incurred costs, charges, fees and expenses in connection with or incidental to the Global Offer, Admission and arrangements contemplated by the Underwriting Agreement including certain taxes payable by the Company pursuant to the Underwriting Agreement.

UK Admission is expected to take place and unconditional dealing in the Ordinary Shares are expected to commence on the London Stock Exchange at 8.00 a.m. on 24 May 2011. HK Admission is expected to become effective and unconditional dealings in the Ordinary Shares are expected to commence on the Main Board of the Hong Kong Stock Exchange at 9.00 a.m. on 25 May 2011. Due

to the time difference between Hong Kong and the UK, it is not possible for HK Admission and UK Admission to occur simultaneously.

However, so as to ensure equality between subscribers and purchasers in the International Offer and the Hong Kong Offer, the Banks will have no termination rights in respect of the Underwriting Agreement in the period between UK Admission and HK Admission.

The Hong Kong Managers have also agreed, on behalf of the Company, to arrange for payment of the brokerage, the SFC transaction levy and the Hong Kong Stock Exchange trading fee payable in respect of the Hong Kong Offer, such amounts to be paid out of the application monies received in respect of the Hong Kong Offer to the relevant payees by a nominee on behalf of all successful applicants under the Hong Kong Offer.

Further details of the terms of the Underwriting Agreement are set out in paragraph 16 of Section X: "Additional Information".

5 Dealings and Admission

Application has been made to the FSA for the Ordinary Shares to be admitted to the premium listing segment of the Official List and to the London Stock Exchange and for such Ordinary Shares to be admitted to trading on the London Stock Exchange's main market for listed securities. Application has been made to the Listing Committee of the Hong Kong Stock Exchange for listing of, and permission to deal in, all of the Ordinary Shares on the Main Board of the Hong Kong Stock Exchange.

Prior to UK Admission, it is expected that dealings in the Ordinary Shares will commence on a conditional basis on the London Stock Exchange at 8.00 a.m. on 19 May 2011. All dealings between the commencement of conditional dealings and the commencement of unconditional dealings will be on a "when issued" basis and at the risk of the parties concerned. If the Global Offer does not become unconditional, these dealings will be of no effect.

When admitted to trading on the London Stock Exchange, the Ordinary Shares will be registered with ISIN number JE00B4T3BW64 and SEDOL number B4T3BW6. The Ordinary Shares will be traded on the Hong Kong Stock Exchange in board lots of 100 Ordinary Shares each and with the stock code of 00805.

UK 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. on 24 May 2011. HK Admission is expected to become effective and unconditional dealings in the Ordinary Shares are expected to commence on the Main Board of the Hong Kong Stock Exchange at 9.00 a.m. on 25 May 2011.

It is expected that Ordinary Shares allocated to investors in the Global Offer will be delivered in certificated or uncertificated form and, for those delivered in uncertificated form, settlement will take place through CREST or CCASS on Admission. All Ordinary Shares issued or sold pursuant to the Global Offer will be issued or sold payable in full at the Offer Price. It is intended that, if applicable, definitive share certificates in respect of the International Offer will be distributed in the week commencing 6 June 2011 (or as soon thereafter as is practicable) and share certificates in respect of the Hong Kong Offer will be despatched on 24 May 2011. No temporary documents of title will be issued.

The International Offer Shares to be made available pursuant to the International Offer will, following UK Admission, rank *pari passu* in all respects with the other Ordinary Shares and will carry the right to receive all dividends and other distributions declared, made or paid on or in respect of the Ordinary Shares after UK Admission. The International Offer Shares will, immediately following UK Admission, be freely transferable under the Articles.

The Hong Kong Offer Shares to be made available pursuant to the Hong Kong Offer will, following HK Admission, rank *pari passu* in all respects with the other Ordinary Shares and will carry the right to receive all dividends and other distributions declared, made or paid on or in respect of the Ordinary Shares after HK Admission. The Hong Kong Offer Shares will, immediately following HK Admission, be freely transferable under the Articles.

Immediately following Admission, it is expected that a minimum of 25 per cent. of the Company's issued Ordinary Share capital will be held in public hands (within the meaning of paragraph 6.1.19R of the Listing Rules).

6 CREST and CCASS

CREST is a paperless settlement system in the UK enabling securities to be evidenced otherwise than by a certificate and to be transferred otherwise than by a written instrument. The Ordinary Shares are in registered form. With effect from UK 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 UK Admission. Accordingly, settlement of transactions in the Ordinary Shares following UK 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. An investor applying for Ordinary Shares in the Global Offer may, however, elect to receive Ordinary Shares in uncertificated form if that investor is a system-member (as defined in the Uncertificated Securities Regulations) in relation to CREST.

CCASS is a securities settlement system in Hong Kong where securities are issued in paper form and deposited with a central depository which is electronically linked with a settlement system. Subject to the granting of the listing of, and permission to deal in, the Ordinary Shares on the Hong Kong Stock Exchange and compliance with the stock admission requirements of HKSCC, the Ordinary Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the Ordinary Shares on the Hong Kong Stock Exchange or on any other date HKSCC chooses.

Settlement of transactions between participants of the Hong Kong Stock Exchange is required to take place in CCASS on the second business day after any trading day. All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time. Investors should seek the advice of their stockbroker or other professional adviser for details of the settlement arrangements as such arrangements may affect their rights and interests. All necessary arrangements have been made enabling the Ordinary Shares to be admitted into CCASS.

7 Transfer of shares between principal share register and branch share register in Hong Kong

Any shareholder whose Ordinary Shares are registered on the principal register may at any time obtain a removal request form from the principal share register for a transfer of Ordinary Shares to the branch share register in Hong Kong. A removal request form when completed should be returned together with the corresponding share certificates and administration fee to the principal registrar, who will arrange for the transfer of such Ordinary Shares to the branch share register in Hong Kong provided that the shareholder concerned provides a registered address in Hong Kong.

Similarly, any shareholder whose Ordinary Shares are registered on the branch share register in Hong Kong can at any time obtain a removal request form from the Hong Kong share registrar for a transfer of Ordinary Shares to the principal share register. On the return of such form, duly completed, together with the corresponding share certificates and administration fee to the Hong Kong share registrar it will arrange for the transfer of such Ordinary Shares to the principal share register.

8 Lock-up arrangements

The Company has entered into a lock-up arrangement in favour of the Joint Global Co-ordinators for a period of six months from the date of UK Admission. In addition, each Existing Shareholder has entered into a lock-up arrangement in favour of the Joint Global Co-ordinators and the Company for various periods from the date of Admission. These lock-up arrangements apply in the case of the Executive Directors until five years after Admission (with a staggered release after the first year of that period) and in the case of the other Existing Shareholders for a period of time of between one year and four years from Admission (with a staggered release after the first year of that period, if applicable). Furthermore, each Cornerstone Investor has entered into a lock-up arrangement in favour of the Joint Global Co-ordinators and the Company for a period of six months from the date of UK Admission. The lock-up arrangements are subject to certain exceptions.

Further details of the terms of these arrangements are set out in paragraph 17 of Section X: "Additional Information".

9 Withdrawal rights

In the event that the Company is required to publish any supplementary prospectus, applicants who have applied for Ordinary Shares in the International Offer shall have at least two clear business days following the publication of the relevant supplementary prospectus within which to withdraw their offer to subscribe for Ordinary Shares in the International Offer in its entirety. The right to withdraw an application to subscribe for Ordinary Shares in the International Offer in these circumstances will be available to all investors in the International Offer. If the application is not withdrawn within the stipulated period, any offer to apply for Ordinary Shares in the International Offer will remain valid and binding.

Investors wishing to exercise statutory withdrawal rights after the publication of any supplementary prospectus must do so by lodging a written notice of withdrawal by hand (during normal business hours only) at Computershare Investor Services (Jersey) Limited, Queensway House, Hilgrove Street, St. Helier, Jersey JE1 1ES, or by facsimile (during normal business hours only) on +44(0)870 873 5851 so as to be received no later than two business days after the date on which the supplementary prospectus is published. Notice of withdrawal given by any other means or which is deposited with or received by the Company after expiry of such period will not constitute a valid withdrawal.

10 Cornerstone investors

On 4 May 2011, in connection with the International Offer, the Company entered into subscription agreements with certain Cornerstone investors (including, in the case of the cornerstone investors that are private banks, the ultimate beneficial owners of the International Offer Shares subscribed for under the relevant Cornerstone Investment Agreements) (the "Cornerstone Investors") who have agreed to subscribe for International Offer Shares at the Offer Price (the "Cornerstone Investment Agreements"). The terms of the arrangements between each of the Cornerstone Investors and the Company are summarised in paragraph 10.2 below.

Certain of the Banks have made, or may enter into, arrangements with one or more Cornerstone Investors and certain other investors to provide financing in connection with the subscription by such investors for the International Offer Shares as described above.

Based on an Offer Price at the mid-point of the Offer Price Range, the total number of International Offer Shares subscribed for by the Cornerstone Investors would be approximately 350,943,389 International Offer Shares, which represent approximately (i) 31.9 per cent. of the International Offer Shares, and (ii) 5.1 per cent. of the Ordinary Shares in issue following the Global Offer, in each case, assuming that the Over-Allotment Option is not exercised and that the Kazzinc Consideration Shares are not issued.

The International Offer Shares to be subscribed for by the Cornerstone Investors pursuant to the Cornerstone Investment Agreements will rank *pari passu* in all respects with the other Ordinary Shares, and the International Offer Shares to be subscribed for by the Cornerstone Investors will be held in public hands (within the meaning of paragraph 6.1.19R of the Listing Rules).

The Cornerstone Investors are independent third parties and none of them is an existing shareholder or a connected person of the Company (as defined in the Hong Kong Listing Rules), save to the extent that any such Cornerstone Investors hold Convertible Bonds. The International Offer Shares to be acquired by the Cornerstone Investors will not be affected by any reallocation of the Offer Shares between the International Offer and the Hong Kong Offer or by any exercise of the Over Allotment Option.

10.1 Cornerstone Investors

A brief description of each of the Cornerstone Investors is as follows. The information set out below in respect of each of the Cornerstone Investors has been provided by each relevant Cornerstone Investor.

Aabar

Aabar Investments PJS ("Aabar") is an investment company headquartered in Abu Dhabi, United Arab Emirates with investments around the world. It invests in various sectors, including financial services, automotive, real estate, energy, manufacturing and technology and aerospace, with many of its investments being made by way of international partnerships and alliances. Its largest stakeholder is the International Petroleum Investment Company, which is wholly owned by the Government of the Emirate of Abu Dhabi.

Aabar has agreed to acquire, directly or indirectly, such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$850 million at the Offer Price. Following UK Admission, such Offer Shares will be held, directly or indirectly, by Aabar on the Company's principal share register. Although no formal arrangements have been entered into between Glencore and Aabar, the two organisations intend to explore areas of co-operation between themselves in the future.

BlackRock

BlackRock Advisors (UK) Limited and BlackRock Investment Management (UK) Limited are companies incorporated in England (the "BlackRock Entities"). The BlackRock Entities are indirect wholly owned subsidiaries of BlackRock, Inc ("BlackRock"), which is a Delaware corporation listed on the New York Stock Exchange (NYSE:BLK). BlackRock is one of the world's preeminent asset management firms and a provider of global investment management, risk management and advisory services to institutional, intermediary and individual investors around the world.

The BlackRock Entities have agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$360 million[(1)] at the Offer Price. Following UK Admission, such Offer Shares will be held by the BlackRock Entities on the Company's principal share register.

Brookside Capital

Brookside Capital Trading Fund, L.P. (the "Brookside Fund") is a limited partnership formed under the laws of Delaware, United States of America, which, as of 31 March 2011, had approximately U.S.$11 billion in assets. The investment advisor to the Brookside Fund is Brookside Capital, LLC ("Brookside Capital"), the public equity affiliate of Bain Capital, LLC. Brookside Capital's investment process involves in-depth strategic and financial analysis, with an emphasis on the analysis of industry dynamics, competitive position and management capability and identification of operational improvements to determine the "intrinsic value" of potential investments.

The Brookside Fund has agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$225 million at the Offer Price. Following UK Admission, such Offer Shares will be held by the Brookside Fund on the Company's principal share register.

Credit Suisse AG

Credit Suisse AG is domiciled in Switzerland and is a wholly owned subsidiary of Credit Suisse Group AG which is listed on the SIX Swiss Exchange (ISIN: CH0012138530). Credit Suisse AG's business consists of the three divisions Private Banking, Investment Banking and Asset Management. Credit Suisse AG's Private Banking division offers comprehensive advice and a broad range of wealth management solutions, which are tailored to the needs of high-net-worth and ultra-high-net-worth individuals worldwide. In Switzerland, it supplies banking products and services to individual clients, including affluent, high-net-worth and ultra-high-net-worth clients, and corporates and institutions.

(1) BlackRock Advisors (UK) Limited has agreed to acquire such number of Offer Shares which may be acquired with £95 million, which has been converted into U.S.$158 million based on the pounds sterling/U.S.$ exchange rate of £1.00 = U.S.$1.667 quoted by Bloomberg on 29 April 2011.

Credit Suisse AG has agreed to acquire, as agent, and on behalf of eight underlying clients, such number of Offer Shares which may be acquired with the pounds sterling equivalent of U.S.$175 million at the Offer Price. No single underlying client of Credit Suisse AG has agreed to subscribe for more than U.S.$60 million. All the subscription monies are provided by the underlying clients of Credit Suisse AG. The underlying clients are neither directors, nor hold or control more than 10 per cent. of the issued share capital, of Credit Suisse AG or any of it associates. Following UK Admission, such Offer Shares will be held by the underlying clients on the Company's principal share register.

Eton Park

Eton Park Master Fund, Ltd. and EP Cayman, Ltd. are exempted companies incorporated in the Cayman Islands (the "Eton Park Funds"). The investment manager of the Eton Park Funds is Eton Park Capital Management, L.P. ("Eton Park"). Eton Park is a global, multi-disciplinary investment management firm with offices in New York, London and Hong Kong. As at 31 March 2011, Eton Park had in excess of U.S.$14 billion of assets under management.

The Eton Park Funds have agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$200 million at the Offer Price. Following UK Admission, such Offer Shares will be held by or on behalf of the Eton Park Funds on the Company's principal share register.

Fidelity

FIL Investment Services (UK) Limited, FIL Investments International and FIL Pensions Management (the "Fidelity Entities") are all ultimately owned and controlled by Fidelity. Fidelity is one of the UK's largest investment fund managers with over 660,000 customers in the UK. Fidelity looks after assets worth U.S.$255.5 billion (as at 31 March 2011).

The Fidelity Entities have agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$215 million at the Offer Price. Following UK Admission, such Offer Shares will be held by the Fidelity Entities on the Company's principal share register.

GIC

The Government of Singapore Investment Corporation Pte Ltd ("GIC") is a global investment management company established in 1981 to manage Singapore's foreign reserves. GIC invests internationally in equities, fixed income, foreign exchange, commodities, money markets, alternative investments, real estate and private equity. With its current portfolio size of more than U.S.$100 billion, GIC is amongst the world's largest fund management companies.

GIC has agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$400 million at the Offer Price. Following UK Admission, such Offer Shares will be held by GIC on the Company's principal share register.

Och-Ziff

Certain affiliated investment funds of Och-Ziff Capital Management Group (the "Och-Ziff Funds") have agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$175 million at the Offer Price. Following UK Admission, such Offer Shares will be held by the Och-Ziff Funds on the Company's principal share register.

Pictet

Founded in 1805 in Geneva, Pictet & Cie ("Pictet") is today among Switzerland's largest private banks, and one of the leading independent asset management specialists in Europe, with CHF 372 billion in assets under management and custody as at 31 December 2010. Pictet is a partnership, owned and managed by eight general partners with unlimited liability for the bank's commitments. Specialising in asset and wealth management Pictet also offers, as stand-alone products, global custody and fund administration.

Pictet has agreed to acquire, as agent, and on behalf of 50 underlying clients, such number of Offer Shares which may be acquired with the pounds sterling equivalent of U.S.$100 million at the Offer Price. No single underlying client of Pictet has agreed to subscribe for more than U.S.$25 million. All the subscription monies are provided by the underlying clients of Pictet. The underlying clients are neither directors, nor hold or control more than 10 per cent. of the partnership, of Pictet or any of it associates. Following UK Admission, such Offer Shares will be held by the underlying clients on the Company's principal share register.

UBS AG

UBS AG is a bank incorporated and domiciled in Switzerland and is listed on the SIX Swiss Exchange and the New York Stock Exchange (Valor symbol: UBSN; ISIN: CH0024899483). It operates under the Swiss Code of Obligations and Swiss Federal Banking Law as an Aktiengesellschaft, a corporation that has issued shares of common stock. UBS AG has its two headquarters in Zurich and Basel, Switzerland. Its scope of operations extends to all types of banking, financial, advisory, trading and service activities in Switzerland and abroad.

UBS AG has agreed to acquire, as agent, and on behalf of four underlying clients, such number of Offer Shares which may be acquired with the pounds sterling equivalent of U.S.$100 million at the Offer Price. No single underlying client of UBS AG has agreed to subscribe for more than U.S.$25 million. All the subscription monies are provided by the underlying clients of UBS AG. The underlying clients are neither directors, nor hold or control more than 10 per cent. of the issued share capital, of UBS AG or any of it associates. Following UK Admission, such Offer Shares will be held by the underlying clients on the Company's principal share register.

York Capital

York Capital Management was founded in 1991 and has offices located in New York, London and Hong Kong. York Capital Management manages over U.S.$16 billion dollars worth of assets on behalf of institutions, endowments, foundations, fund of funds, wealthy individuals and their families. York Capital Management's investment strategy is to provide consistent, superior risk-adjusted investment returns relatively independent of the overall market, and it pursues this strategy through a combination of focused research, investment selection, and disciplined risk management.

Investment funds and accounts managed by York Capital Management Global Advisors, LLC (the "York Capital Funds"), have agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$200 million at the Offer Price. Following UK Admission, such Offer Shares will be held by the York Capital Funds on the Company's principal share register.

Zijin

Zijin Mining Group Co. Ltd ("Zijin") is registered in China, with its head office in Shanghang County, Fujian province. Zijin's gold production is ranked No. 1 in China and it also mines other metals including copper, lead, zinc, tungsten, tin, silver and iron. Zijin's offshore operations are still at an early stage but it has a strong potential for growth in the years to come. Zijin is dual listed on the Hong Kong Stock Exchange and the Shanghai Stock Exchange, with a market capitalisation of over U.S.$17 billion.

Zijin has agreed to acquire such number of Offer Shares which may be acquired with the sterling equivalent of U.S.$100 million at the Offer Price. Following UK Admission, such Offer Shares will be held by Zijin on the Company's principal share register.

10.2 **Cornerstone Investment Agreements**

The subscription obligation of each Cornerstone Investor is conditional upon, amongst others, the Underwriting Agreement being entered into and having become unconditional in respect of the International Offer by no later than UK Admission (or such later time and date as the Company and Joint Global Co-ordinators may agree and notify to the Cornerstone Investor, being no later than 31 July 2011) and not having been terminated on or prior to UK Admission and the Offer Price being within the Offer Price Range.

Each of the Cornerstone Investors has agreed that (subject to certain customary exceptions more particularly described in paragraph 17.7 of Section X: "Additional Information"), without the prior written consent of the Company and the Joint Global Co-ordinators (which are parties to the Cornerstone Investment Agreements), it will not, at any time during the period ending six months following UK Admission, directly or indirectly, dispose of any Offer Shares subscribed for by it pursuant to the Cornerstone Investment Agreement to which it is party.

Please refer to Section X: "Additional Information" for further information on the Cornerstone Investment Agreements.

11 Impact of the convertible bond

Following Admission, Convertible Bond investors will be eligible to convert their bonds into Ordinary Shares which will in total represent 5.5 per cent. of the total issued share capital of the Company following Admission and following conversion (assuming the Offer Price is set at the mid-point of the Offer Price Range, the Over-Allotment Option was not exercised and no Kazzinc Consideration Shares have been issued).

Please refer to Section X: "Additional Information" for further information on the Convertible Bonds.

12 Selling and transfer restrictions

The distribution of this Prospectus and the offer of Ordinary Shares in certain jurisdictions may be restricted by law and persons into whose possession this Prospectus comes should therefore 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.

No action has been taken or will be taken in any jurisdiction that would permit a public offering or sale of the Ordinary Shares, or possession or distribution of this Prospectus (or any other offering or publicity material relating to Ordinary Shares other than a separate prospectus to be issued by the Company in Hong Kong in connection with the Hong Kong Offer) in any country or jurisdiction where action for that purpose is required or doing so may be restricted by law.

None of the Ordinary Shares may be offered for subscription, sale or purchase or be delivered, and this Prospectus and any other offering material in relation to the Ordinary Shares may not be circulated, in any jurisdiction where to do so would breach any securities laws or regulations of any such jurisdiction or give rise to an obligation to obtain any consent, approval or permission or to make any application, filing or registration.

Persons into whose possession this Prospectus comes should inform themselves about and observe any restrictions on the distribution of this Prospectus and any offering of the Ordinary Shares. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction. This Prospectus does not constitute an offer to subscribe for or purchase any of the Ordinary Shares to any person in any jurisdiction to whom it is unlawful to make such offer of solicitation in such jurisdiction.

No Ordinary Shares have been marketed to, nor are available for purchase in whole or in part by, the public in the United Kingdom or elsewhere in conjunction with the Global Offer. This Prospectus does not constitute a public offer or the solicitation of a public offer in the United Kingdom to subscribe for or buy any securities in the Company or any other entity.

12.1 **Offering restrictions relating to the U.S. and U.S. Persons**

As described more fully below, there are certain selling and transfer restrictions regarding the Ordinary Shares with respect to U.S. shareholders.

These restrictions include, among others, (i) prohibitions on participation in the Global Offer by persons in circumstances which might cause the Company to be required to be registered as an investment company under the Investment Company Act, and (ii) restrictions on the ownership and transfer of Ordinary Shares by such persons following the Global Offer.

The Ordinary Shares have not been and will not be registered under the Securities Act or the securities laws of any state of the U.S. and, therefore, the Ordinary Shares may not be directly

or indirectly offered for subscription or purchase, sold, delivered or transferred to (or for the account or benefit of) any U.S. Person, or in or into the U.S. except pursuant to an applicable exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and in compliance with any applicable securities laws of any state or other jurisdiction of the U.S. There will be no public offer of the Ordinary Shares in the U.S.

The Underwriters may arrange for the offer of Ordinary Shares only (a) outside the U.S., other than to U.S. Persons or persons acquiring for the account or benefit of a U.S. Person, in accordance with Rule 903 of Regulation S and (b) within the U.S. by U.S. broker-dealer affiliates of a Joint Global Coordinator to, or for the account or benefit of, U.S. Persons reasonably believed to be both QIBs, in reliance on the exemption from registration provided by Rule 144A under the Securities Act, and QPs. Any U.S. Person subscribing for or purchasing Ordinary Shares will be required to execute the U.S. Purchaser's Letter described below.

Restrictions on offering under the Securities Act and the Investment Company Act

Each subscriber and purchaser that is within the U.S. or that is a U.S. Person (or is subscribing or purchasing for the account or benefit of a U.S. Person) is notified that the offer and sale of Ordinary Shares to it is being made in reliance upon an exemption from the registration requirements of the Securities Act, and that the Company will not be registered under the Investment Company Act. Each subscriber and purchaser that is within the U.S., or that is a U.S. Person (or is subscribing or purchasing for the account or benefit of a U.S. Person), must be both a QIB and a QP.

In addition, each subscriber and purchaser that is located within the U.S. or that is a U.S. Person (or is subscribing or purchasing for the account or benefit of a U.S. Person), prior to any such transaction, will be required to execute a U.S. Purchaser's Letter in the form set out in Section XI: "U.S. Purchaser's Letter", and deliver the letter to the Underwriters and the Company. The U.S. Purchaser's Letter will require each such subscriber and purchaser to represent and agree that, amongst other things, (i) it is both a QIB and a QP and (ii) it will only offer, sell, transfer, assign, pledge or otherwise dispose of the Ordinary Shares in an offshore transaction complying with the provisions of Regulation S (including, for the avoidance of doubt, a *bona fide* sale on the London Stock Exchange's main market for listed securities and on the Main Board of the Hong Kong Stock Exchange) to a person not known to be a U.S. Person (by pre-arrangement or otherwise), and in compliance with applicable securities laws, provided that the transferor has executed an Offshore Transaction Letter in the form of Annex I to Section XI: "U.S. Purchaser's Letter" and promptly sends it to the Company. The transferor will notify any subsequent transferee or executing broker, as applicable, of the restrictions that are applicable to the Ordinary Shares being sold. The U.S. Purchaser's Letter and the Offshore Transaction Letter contain additional written representations, agreements and acknowledgements relating to the transfer restrictions applicable to the Ordinary Shares.

The Company has not been and does not intend to become registered as an investment company under the Investment Company Act and related rules. The Company and its agents may require any U.S. Person or any person within the U.S. that was required to be a QP but was not a QP at the time it acquired the Ordinary Shares or a beneficial interest therein to transfer its Ordinary Shares or such beneficial interest immediately to a non-U.S. Person in an offshore transaction pursuant to Regulation S under the Securities Act.

If any subscriber or purchaser of Ordinary Shares that was required to execute a U.S. Purchaser's Letter in connection with the acquisition of such Ordinary Shares receives them in certificated form, the certificate for the Ordinary Shares will bear an appropriate legend reflecting the transfer restrictions described in the U.S. Purchaser's Letter.

Restrictions on offering in reliance on Regulation S

Each purchaser to whom the Ordinary Shares are distributed, offered or sold outside the U.S. (other than U.S. Persons) will be deemed by its subscription for, or purchase of, the Ordinary Shares, to have represented and agreed as follows:

(a) it is not a U.S. Person and is not acquiring the Ordinary Shares for the account or benefit of a U.S. Person;

(b) it is acquiring the Ordinary Shares in an offshore transaction meeting the requirements of Regulation S;

(c) it is aware that the Ordinary Shares have not been and will not be registered under the Securities Act and may not be offered or sold in the U.S. or to, or for the account or benefit of, U.S. Persons, absent registration or an exemption from registration under the Securities Act;

(d) it is aware that the Company has not registered under the Investment Company Act and that the Company has put in place restrictions for transactions not involving any public offering in the U.S., and to ensure that the Company is not and will not be required to register under the Investment Company Act;

(e) if in the future it decides to offer, sell, transfer, assign or otherwise dispose of the Ordinary Shares, it will do so only in compliance with an exemption from the registration requirements of the Securities Act and under circumstances which will not require the Company to register under the Investment Company Act;

(f) it has carefully read and understands this Prospectus, and has not, directly or indirectly, distributed, forwarded, transferred or otherwise transmitted this Prospectus or any other presentation or offering materials concerning the Ordinary Shares to any persons within the U.S. or to any U.S. Persons, nor will it do any of the foregoing; and

(g) the Company, the Underwriters and their respective directors, officers, agents, employees, advisers and others will rely upon the truth and accuracy of the foregoing representations and agreements. If any of the representations or agreements made by it are no longer accurate or have not been complied with, it will immediately notify the Company, the Underwriters, and if it is acquiring any Ordinary Shares as a fiduciary or agent for one or more accounts, it has sole investment discretion with respect to each such account and it has full power to make such foregoing representations and agreements on behalf of each such account.

Restrictions on U.S. Persons

Each U.S. Person will be deemed to have represented and agreed for the benefit of the Company and its advisers that:

(a) it is a QIB and a QP;

(b) if it purchases Ordinary Shares, (i) it will be a QIB and a QP at the time of such purchase and subscription or it will be acting for the account or benefit of a QIB and a QP; and (ii) such Ordinary Shares will be offered, resold, transferred, assigned, pledged or otherwise disposed of by it in a transaction (a "disposal") executed solely in, on or through the facilities of the London Stock Exchange, the Hong Kong Stock Exchange or otherwise in an offshore transaction complying with the provisions of Regulation S, and neither it nor any person acting on its behalf will pre-arrange such disposal with a buyer in the U.S. or known to be a U.S. Person; and

(c) if it elects to subscribe for Ordinary Shares, such subscription will only be valid if it follows the procedures described in paragraph 12 of this Section VIII and such subscription is accompanied by an executed U.S. Purchaser's Letter attached in Section XI: "U.S. Purchaser's Letter".

12.2 **European Economic Area**

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") no offer of the Ordinary Shares which are the subject of the offering contemplated by the Prospectus to the public in that Relevant Member State has been or will be made other than the offers contemplated in the Prospectus in the United Kingdom from the time the Prospectus has been approved by the competent authority in the United Kingdom and published and notified to the relevant competent authority in accordance with the Prospectus Directive as implemented in the United Kingdom until UK Admission, and

provided that the Company has consented in writing to use of the Prospectus for any such offers, except that with effect from and including the Relevant Implementation Date, an offer of such Ordinary Shares may be made to the public in that Relevant Member State:

- *Qualified investors:* to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- *Fewer than 100 offerees:* to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the relevant Underwriters nominated by the Company for any such offer; or
- *No publication of a prospectus:* in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of Ordinary Shares shall require the Company or any of the Underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this selling restriction, the expression an "offer of Ordinary Shares to the public" in relation to any Ordinary Shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Ordinary Shares to be offered so as to enable an investor to decide to purchase or subscribe the Ordinary Shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

12.3 **Japan**

The Ordinary Shares offered hereby have not been and will not be registered under the Financial Instruments and Exchange Act of Japan. Accordingly, no Ordinary Shares will be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organised under the laws of Japan) or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exception from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and other relevant laws and regulations of Japan.

12.4 **Australia**

This Prospectus has not been and will not be lodged with the Australian Securities and Investments Commission or the Australian Stock Exchange and is not a disclosure document for the purposes of Australian law. This Prospectus (whether in preliminary or definitive form) may not be issued or distributed in Australia and no offer or invitation may be made in relation to the issue, sale or purchase of any Ordinary Shares in Australia (including an offer or invitation received by a person in Australia) and no shares may be sold in Australia, unless the offer or invitation may be made to investors without a disclosure document under Part 6D 2 of the Corporations Act 2001 (the "Corporations Act").

Any person to whom Ordinary Shares are issued or sold pursuant to this Prospectus must not, within 12 months after the issue, offer (or transfer, assign or otherwise alienate) those Ordinary Shares to persons in Australia except in circumstances where disclosure is not required under the Corporations Act.

This Prospectus is not, and under no circumstances is to be construed as, an advertisement or a public offering of the Ordinary Shares in Australia.

This Prospectus has not been prepared for an Australian audience. Australian investors should therefore note that this Prospectus:

- may contain references to dollar amounts which are not Australian dollars;

- may contain financial information which is not prepared in accordance with Australian law or practices;
- may not address risks associated with investment in foreign currency denominated investments; and
- does not address Australian tax issues.

12.5 **United Arab Emirates**

This Prospectus is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose.

By receiving this Prospectus, the person or entity to whom it has been issued understands, acknowledges and agrees that this Prospectus has not been approved by or filed with the UAE Central Bank, the Emirates Securities or Commodities Authority ("ESCA") or any other authorities in the UAE, nor has the placement agent, if any, received authorisation or licensing from the UAE Central Bank, ESCA or any other authorities in the UAE to market or sell securities or other investments within the UAE. No marketing of any financial products or services has been or will be made from within the UAE other than in compliance with the laws of the UAE and no subscription to any securities or other investments may or will be consummated within the UAE. It should not be assumed that the placement agent, if any, is a licensed broker, dealer or investment adviser under the laws applicable in the UAE, or that it advises individuals resident in the UAE as to the appropriateness of investing in or purchasing or selling securities or other financial products. The Ordinary Shares may not be offered or sold directly or indirectly to the public in the UAE. This does not constitute a public offer of securities in the UAE in accordance with the Commercial Companies Law, Federal Law No. 8 of 1984 (as amended) or otherwise.

12.6 **Dubai International Financial Centre**

This Prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority (the "DFSA"). This Prospectus is intended for distribution only to persons of a type specified in those rules. It must not be delivered to, or relied on by, any other person.

The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved the Ordinary Shares or the Prospectus nor taken steps to verify the information set out in the Prospectus, and has no responsibility for it.

The Ordinary Shares and interests therein to which this Prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the Ordinary Shares and interests therein should conduct their own due diligence on the Ordinary Shares. If you do not understand the contents of this Prospectus you should consult an authorised financial adviser.

In relation to its use in the DIFC, this Prospectus is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the Ordinary Shares may not be offered or sold directly or indirectly to the public in the DIFC.

12.7 **South Africa**

This Prospectus will not be registered as a prospectus in terms of the Companies Act 1973 in South Africa and as such, any offer of Ordinary Shares in South Africa may only be made if it shall not be capable of being construed as an offer to the public as envisaged by section 144 of such Act. Furthermore, any offer or sale of the Ordinary Shares shall be subject to compliance with South African exchange control regulations.

12.8 **Hong Kong**

(a) No International Offer Shares have been offered or sold or will be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) and any rules made under that Ordinance; or (b) in other circumstances which do not

result in the document being a "prospectus" as defined in the Companies Ordinance of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and

(b) No advertisement, invitation or document relating to the International Offer Shares has been issued or has been in the possession of any person for the purposes of issue, nor will any such advertisement, invitation or document be issued or be in the possession of any person for the purpose of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to International Offer Shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) and any rules made under that Ordinance.

12.9 **Brazil**

The offering of the Ordinary Shares has not been, and will not be, submitted to, or registered with, the Brazilian Securities Commission (*Comissão de Valores Mobiliários*). Accordingly, the Ordinary Shares may not be offered or sold in Brazil in circumstances that constitute a public offering or distribution according to Brazilian laws and regulations. Documents relating to the offering of the Ordinary Shares, including this Prospectus, may not be supplied or made generally available to the public in Brazil or be used in connection with an offer for subscription or sale to the public in Brazil.

Therefore, no Ordinary Shares have been offered or sold or will be offered or sold in Brazil, except in circumstances which do not constitute a public offering, placement, distribution or negotiation of securities in the Brazilian capital markets regulated by Brazilian legislation.

Persons wishing to offer or acquire the Ordinary Shares within Brazil should consult with their own counsel as to the applicability of registration requirements or any exemption therefrom.

12.10 **Canada**

The Ordinary Shares will not be qualified for sale under the securities laws of any province or territory of Canada. The Offer Shares may not be offered or sold, directly or indirectly, in any province or territory of Canada or to or for the benefit of any resident of any province or territory of Canada, except pursuant to an exemption from the requirement to file a prospectus in the province or territory of Canada in which the offer or sale is made and only by a dealer duly registered under applicable laws in circumstances where an exemption from applicable registered dealer registration requirements is not available.

The Ordinary Shares will not be offered, sold or distributed directly or indirectly, in Canada or to or for the benefit of any resident of Canada, other than in compliance with applicable securities laws. Neither this Prospectus, nor any other offering material in connection with the offer of the Offer Shares under the Global Offering, will be distributed or delivered in Canada other than in compliance with applicable securities laws.

12.11 **India**

This Prospectus has not and will not be registered as a "prospectus" under the Indian Companies Act, 1956 with the Registrar of Companies (the "RoC"), nor has the Prospectus nor any amendment or supplement thereto been reviewed, approved, or recommended by the RoC or the Securities and Exchange Board of India or any other Indian regulatory authority. This Prospectus may not be distributed directly or indirectly in India or to residents of India and any Ordinary Shares may not be offered, sold, transferred or delivered directly or indirectly in India to, or for the account or benefit of, any resident of India, except as permitted by applicable Indian laws and regulations, under which an offer to eligible Indian residents is strictly on a private and confidential basis and is limited to select institutional investors (who are eligible to apply for such offering) and is not an offer to the public. This Prospectus is not a prospectus or an advertisement under applicable Indian laws and should not be circulated to any other person other than to whom the offer is made.

12.12 **Indonesia**

The Ordinary Shares will not be registered as public offering in Indonesia, and therefore the Ordinary Shares will not be offered to more than 100 parties or sold to more than 50 parties in Indonesia or to Indonesian nationals, corporations or to Indonesian citizens, wherever they are domiciled or to Indonesian residents. Neither this Prospectus nor any other offering materials relating to the Ordinary Shares have been distributed, or will be distributed, in Indonesia or to Indonesian nationals, corporations or residents in a manner which constitutes a public offering of the Ordinary Shares under the laws or regulations of the Republic of Indonesia.

12.13 **Kingdom of Saudi Arabia**

This Prospectus may not be distributed in the Kingdom of Saudi Arabia (the "Kingdom"), except to such persons as are permitted under the Offers of Securities Regulations issued by the Capital Market Authority of the Kingdom (the "Capital Market Authority").

The Capital Market Authority does not make any representations as to the accuracy or completeness of this Prospectus and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this Prospectus. Prospective purchasers of the Ordinary Shares offered hereby should conduct their own due diligence on the accuracy of the information relating to the Ordinary Shares. If a prospective purchaser does not understand the contents of this Prospectus, he or she should consult an authorised financial adviser.

12.14 **Kuwait**

By receiving this Prospectus, the person or entity to whom it has been issued understands, acknowledges and agrees that this Prospectus has not been approved by the Kuwait Central Bank, the Kuwait Ministry of Commerce and Industry or any other authority in Kuwait, nor have any authorisations or licences been granted by the Kuwait Central Bank, the Kuwait Ministry of Commerce and Industry or any other authority in Kuwait to market or sell the Ordinary Shares within Kuwait.

No marketing of any financial products or services has been or will be made from within Kuwait and no subscription to any securities, financial products or financial services may or will be consummated within Kuwait. The managers for Kuwait do not advise parties in Kuwait as to the appropriateness of investing in, purchasing or selling the Ordinary Shares or other financial products. Nothing contained in this Prospectus is intended to constitute investment, legal, tax, accounting or other professional advice. This Prospectus is for information only and nothing in this Prospectus is intended to endorse or recommend a particular course of action. Any person considering acquiring the Ordinary Shares should consult with an appropriate professional for specific advice rendered on the basis of their respective situation.

12.15 **Malaysia**

No offering for subscription or purchase and no invitation to subscribe for or purchase the Ordinary Shares may be made in Malaysia. This Prospectus or any document or other materials in connection therewith may not be distributed in Malaysia directly or indirectly for the purpose of any offering for subscription or purchase, invitation to subscribe for or purchase or for the sale of, the Ordinary Shares in Malaysia other than to persons falling within one of the categories specified under Schedule 6 or Section 229(1)(b) or Schedule 7 or Section 230(1)(b) of the Capital Markets and Services Act 2007 of Malaysia.

If you are a purchaser of Ordinary Shares, then you represent and warrant that you are a person falling within one of the categories of persons specified under Schedule 6 or Section 229(1)(b); or Schedule 7 (or Section 230(1)(b)) of the Capital Markets and Services Act 2007 of Malaysia, subject to any law, order, regulation or official directive of the Securities Commission of Malaysia, Bursa Malaysia Securities Berhad and/or any other regulatory authority from time to time.

12.16 **People's Republic of China**

This Prospectus and the information contained herein may not be circulated or distributed in the People's Republic of China (for such purposes, not including the Hong Kong and Macau Special Administrative Regions or Taiwan) and the Ordinary Shares are not being offered or sold and may not be offered or sold, directly or indirectly, to any resident of the People's

Republic of China, or offered or sold to any person for re-offering or resale, directly or indirectly, to any resident of the People's Republic of China, except pursuant to applicable laws and regulations of the People's Republic of China. PRC investors are responsible for obtaining all relevant government regulatory approvals/licences (if any) by themselves, including, but not limited to, any which may be required from the State Administration of Foreign Exchange and other competent regulatory authorities and complying with all relevant PRC regulations (if applicable), including, but not limited to, any relevant foreign exchange regulations and/or overseas investment regulations.

12.17 **Singapore**

This Prospectus has not been registered as a prospectus with the Monetary Authority of Singapore under the Securities and Futures Act, Cap. 289 of Singapore (the "SFA") and, accordingly, the Ordinary Shares may not be offered or sold, nor may the Ordinary Shares be the subject of an invitation for subscription or purchase, nor may this Prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase of the Ordinary Shares be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to an offer referred to in Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Ordinary Shares are acquired by persons who are relevant persons specified in Section 276 of the SFA, namely:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

the shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months of that corporation or that trust acquiring the Ordinary Shares pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor (under Section 274 of the SFA) or to a relevant person as defined in Section 275(2) of the SFA, or any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights or interest in that trust are acquired at a consideration of not less than 200,000 Singapore dollars (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets and further for corporations, in accordance with the conditions specified in Section 275(1A) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law; or

(iv) as specified in Section 276(7) of the SFA.

12.18 **State of Israel**

No offer, placing, sale or transfer of the Ordinary Shares shall take place in Israel if such offer, placement, sale or transfer would constitute a public offering within the meaning of the Israeli Securities Law—1968 (the "Securities Law"). Any such offer, placement, sale or transfer shall be conducted only in a manner that would not require the publication of a prospectus or similar document in Israel. Such offer, placement, sale or transfer may be made in accordance with Section 15A(a)(1) or Section 15A(b) of the Securities Law, including to an investor of the type that is included in the list of investors set forth in the First Addendum to the Securities Law, with respect to Section 15a(b)(1) of the Law.

12.19 **State of Qatar**

The Ordinary Shares have not been offered, sold or delivered, and will not be offered, sold or delivered, at any time, directly or indirectly, in the State of Qatar in a manner that would constitute a public offering and only in circumstances that are (i) in compliance with all applicable laws and regulations of the State of Qatar and (ii) through persons or corporate entities authorised and licensed to provide investment advice and/or engage in brokerage activity and/or trade in respect of foreign securities in the State of Qatar. This Prospectus has not been reviewed or registered with or approved by the Qatari government authorities, the Qatari Financial Markets Authority or any other relevant State of Qatar regulatory body, whether under law no. 25 (2002) concerning investment funds, Central Bank Resolution no. 15 (1997), as amended, or any associated regulations. Therefore, this Prospectus is strictly private and confidential, and is being issued to a limited number of sophisticated investors, and may not be reproduced or used for any other purpose, nor provided to any person other than the recipient thereof. No general offering of the Ordinary Shares has been or will be made in the State of Qatar and the Ordinary Shares may only be offered, distributed or sold in the State of Qatar to a limited number of investors.

12.20 **Sultanate of Oman**

The information contained in this Prospectus neither constitutes a public offer of securities in the Sultanate of Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy Non-Omani securities in the Sultanate of Oman as contemplated by Article 139 of the Executive Regulations of the Capital Market Law (issued by Decision No. 1/2009). Additionally, this Prospectus is not intended to lead to the conclusion of a contract of any nature whatsoever within the territory of the Sultanate of Oman.

The recipient of this Prospectus represents that he/she is a sophisticated investor (as described in Article 139 of the Executive Regulations of the Capital Market Law) and has such experience in business and financial matters that he/she is capable of evaluating the merits and risks of an investment in securities. The investor acknowledges that he/she is aware that an investment in securities is speculative and involves a high degree of risk, which could include loss of the entire investment.

12.21 **Switzerland**

The Ordinary Shares may not be and will not be publicly offered, sold or advertised, directly or indirectly, in or from Switzerland. Neither this Prospectus nor any other offering or marketing material relating to the Ordinary Shares constitutes a prospectus as such term is understood pursuant to article 652a of the Swiss Federal Code of Obligations or a listing prospectus within the meaning of the listing rules of SIX, and neither this Prospectus nor any other offering or marketing material relating to the Ordinary Shares may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Issuer or the Ordinary Shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the Global Offer of Ordinary Shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and the Global Offer has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of Ordinary Shares.

12.22 **Thailand**

The Ordinary Shares have not been offered or sold and will not be offered or sold, to persons in Thailand other than under circumstances which do not constitute an offer for sale of shares to the public for the purposes of the Securities and Exchange Act of 1992 of Thailand or require approval from or filing of a registration statement and draft prospectus with the office of the Securities and Exchange Commission of Thailand.

12.23 **Bahamas**

The Ordinary Shares shall not be offered or sold in the Bahamas except in circumstances that do not constitute an offer to the public. The Ordinary Shares may not be offered or sold or otherwise disposed of in any way to any person(s) deemed "resident" for exchange control purposes by the Central Bank of the Bahamas.

12.24 **Philippines**

The Ordinary Shares being offered or sold through this Prospectus have not been registered with the Philippines Securities and Exchange Commission under the Philippines Securities Regulation Code. Any future offer or sale of the Ordinary Shares is subject to registration requirement under the Philippines Securities Regulation Code unless such offer or sale qualifies as an exempt transaction.

12.25 **Monaco**

The Ordinary Shares may not be offered or sold, directly or indirectly, to the public in Monaco other than by a Monaco bank or a duly authorised Monegasque intermediary. Consequently, this Prospectus may only be communicated to Monaco banks duly licensed by the Autorité de Contrôle Prudentiel and fully licensed Monaco portfolio management companies by virtue of Law n° 1.144 of July 26, 1991 and Law 1.338, of September 7, 2007 duly licensed by the Commission de Contrôle des Activités Financières. Such regulated intermediaries may in turn communicate this Prospectus to potential investors.

SECTION IX: TAXATION

The following section is a summary guide only to certain aspects of tax in the UK, Switzerland, Jersey, the U.S. and Hong Kong. This is not a complete analysis of all the potential tax effects of acquiring, holding and disposing of Ordinary Shares, nor will it relate to the specific tax position of all Shareholders in all jurisdictions. This summary does not purport to be a legal opinion. Shareholders are advised to consult their own tax advisers.

The description of the taxation consequences is written on the basis that the Company will be solely resident in Switzerland for tax purposes and will therefore be subject to the Swiss tax regime and not (except as noted below) the Jersey tax regime. As a consequence, please refer to the section "Swiss taxation" below for information about withholding tax on dividends and similar cash or in-kind distributions.

1 UK taxation

The following summary is intended as a general guide only and relates only to certain limited aspects of UK tax consequences of holding and disposing of Ordinary Shares. It is based on current UK tax law and the current practice of HMRC, both of which are subject to change, possibly with retrospective effect. The summary applies only to Shareholders who are resident and, if individuals, ordinarily resident and domiciled in the UK for taxation purposes, who hold their Ordinary Shares as an investment (other than under a personal equity plan or an individual savings account), who are the absolute beneficial owners of their Ordinary Shares, who have not (and are not deemed to have) acquired their Ordinary Shares by virtue of an office or employment (whether current, historic or prospective) and are not officers or employees of any member of the Glencore Group. In addition, these comments may not apply to certain classes of Shareholders such as traders, brokers, dealers, banks, financial institutions, collective investment schemes, insurance companies, investment companies, tax-exempt organisations, persons connected with the Company or the Glencore Group, and persons who hold the Ordinary Shares as part of hedging or conversion transactions.

Any person who is in any doubt as to his or her tax position, or who is resident or otherwise subject to taxation in a jurisdiction outside the UK, should consult his or her tax advisers immediately.

1.1 UK taxation of dividends

Dividends paid on the Ordinary Shares

Shareholders who are individuals and who own less than a 10 per cent. shareholding in the Company

A Shareholder who is an individual who is resident in the UK for tax purposes (or who carries on a trade, profession or vocation in the UK through a branch or agency and has used, held or acquired Ordinary Shares for the purposes of such trade, profession or vocation, branch or agency in the UK) will, if he owns less than 10 per cent. of the issued share capital in the Company, be entitled to a tax credit in respect of a dividend paid by the Company which may be set off against the Shareholder's total income tax liability. The tax credit will be equal to 10 per cent. of the aggregate of the dividend and the tax credit (the "gross dividend"), which is also equal to one-ninth of the cash dividend received. Such an individual Shareholder who is liable to income tax at the basic rate will be subject to tax on the dividend at the rate of 10 per cent. of the gross dividend, so that the tax credit will satisfy in full such Shareholder's liability to income tax on the dividend. In the case of such an individual Shareholder who is liable to income tax at the higher rate, the tax credit will be set against but not fully match the Shareholder's tax liability on the gross dividend and such Shareholder will have to account for additional income tax equal to 22.5 per cent. of the gross dividend (which is also equal to 25 per cent. of the cash dividend received) to the extent that the gross dividend when treated as the top slice of the Shareholder's income falls above the threshold for higher rate income tax. In the case of such an individual Shareholder who is subject to income tax at the additional rate, the tax credit will also be set against but not fully match the Shareholder's liability on the gross dividend and such Shareholder will have to account for additional income tax equal to 32.5 per cent. of the gross dividend (which is also equal to approximately 36 per cent. of the cash dividend received) to the extent that the gross dividend when treated as the top slice of the Shareholder's income falls above the threshold for additional rate income tax.

Shareholders who are individuals who own a 10 per cent. or greater shareholding in the Company

In certain circumstances, individuals who own a 10 per cent. or greater shareholding in a company do not qualify for the 10 per cent. tax credit. However, as the Company should not be an offshore fund, and is a company resident in a territory with which the UK has a double tax convention which includes a non-discrimination article, any individuals holding a 10 per cent. or greater shareholding in the Company should also qualify for the 10 per cent. dividend tax credit.

Corporate Shareholders

Shareholders who are within the charge to corporation tax in respect of Ordinary Shares in the Company will be subject to corporation tax on the gross amount of any dividends paid by the Company, subject to any applicable credit for Swiss Withholding Tax (as defined below), unless (subject to special rules for such Shareholders that are small companies) the dividends fall within an exempt class and certain other conditions are met. It is expected that the dividends paid by the Company would generally be exempt for such Shareholders.

The statements contained under the heading "*Dividends paid on the Ordinary Shares*" in this paragraph 1.1 reflect the Company's understanding of the correct interpretation of current UK tax law. However, there is currently some doubt as to whether HMRC agrees with this interpretation in relation to distributions made out of share premium and, therefore, it is unclear how HMRC would interpret a distribution by the Company out of Qualifying Reserves (as described below), as is intended (see the discussion under "Swiss taxation" below). In such cases, there is a risk that HMRC may seek to argue, in relation to certain classes of Shareholders, that such a distribution should not be treated under the rules for income distributions, but is instead within the charge to tax on chargeable gains. In light of this uncertainty, Shareholders are advised to consult their own professional advisers in relation to the implications of distributions by the Company.

Impact of Swiss Withholding Tax

As described more fully under "Swiss taxation" below, dividends and other distributions paid by the Company out of other reserves than the Qualifying Reserves (as described below) will be subject to Swiss Withholding Tax on the cash amount of the distribution at the then prevailing rate (currently 35 per cent.). A UK resident Shareholder may be able to claim a partial refund of the Swiss Withholding Tax withheld under the UK-Switzerland double tax convention.

A UK resident individual Shareholder will generally be entitled to credit for any Swiss Withholding Tax withheld from a dividend or other distribution paid by the Company and not recoverable from the Swiss tax authorities against income tax payable by such Shareholder in respect of the dividend (having taken into account any benefits available under the UK-Switzerland double tax convention).

Under the dividend exemption rules of Part 9A of the Corporation Tax Act 2009, any Shareholder within the charge to corporation tax should generally not be subject to corporation tax on dividends paid by the Company. Where the dividend exemption applies, no credit for any Swiss Withholding Tax withheld from a dividend paid by the Company will be available to a UK resident corporate Shareholder. However, under the dividend exemption rules, an election can be made for a dividend to not be exempt from corporation tax. If such an election is made, HMRC will generally give credit against UK corporation tax on the dividend for any Swiss Withholding Tax withheld from a dividend paid by the Company and not recoverable from the Swiss tax authorities, applying the appropriate rate of withholding under the UK-Switzerland double tax convention.

If you are in any doubt about your tax position, you should consult your own professional adviser without delay.

1.2 **UK taxation consequences of disposing of Ordinary Shares**

A disposal of Ordinary Shares by a UK tax resident Shareholder may, depending on individual circumstances, give rise to a chargeable gain or allowable loss for UK tax purposes.

A disposal of Ordinary Shares by a Shareholder who is not resident in the UK for tax purposes but who carries on a trade, profession or vocation in the UK through a branch, agency or permanent establishment and has used, held or acquired the Ordinary Shares for the purposes of such trade, profession or vocation or such branch, agency or permanent establishment may, depending on individual circumstances, give rise to a chargeable gain or allowable loss for UK tax purposes.

A Shareholder who is an individual and who is temporarily non-resident in the UK for a period of less than five complete tax years may, under anti-avoidance legislation, still be liable to UK taxation on their return to the UK on a chargeable gain realised on the disposal or part disposal of Ordinary Shares during the period when he is non-resident.

For corporate Shareholders only, indexation allowance on the relevant proportion of the original allowable cost should be taken into account for the purposes of calculating a chargeable gain (but not an allowable loss) arising on a disposal or part disposal of Ordinary Shares.

1.3 **UK stamp duty and SDRT**

No UK stamp duty or SDRT will be payable on the issue of Ordinary Shares.

In practice, UK stamp duty should generally not need to be paid on an instrument transferring Ordinary Shares, provided that such transfer instruments are executed and retained outside of the UK.

No UK SDRT will be payable in respect of any agreement to transfer Ordinary Shares.

The statements in this paragraph 1.3 summarise the current position on stamp duty and SDRT and are intended as a general guide only. They assume that the Ordinary Shares will not be registered in a register kept in the UK by or on behalf of the Company. The Company has confirmed it does not intend to keep such a register in the UK.

1.4 **UK inheritance tax**

On the basis of the assumption contained in paragraph 1.3 above, the Ordinary Shares will be assets situated outside the United Kingdom for the purposes of United Kingdom inheritance tax. A gift of such assets by, or the death of, an individual holder of such assets who is domiciled or is deemed to be domiciled in the United Kingdom may (subject to certain exemptions and reliefs) give rise to a liability to United Kingdom inheritance tax. Generally, United Kingdom inheritance tax is not chargeable on outright gifts to individuals if the transfer is made more than seven complete years prior to the death of the donor. 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. Since the Ordinary Shares will be assets situated outside the United Kingdom for the purposes of United Kingdom inheritance tax, where a holder is neither domiciled nor deemed domiciled in the United Kingdom (under certain rules relating to long residence or previous domicile), neither a gift of such assets by the holder nor the death of such holder will give rise to a liability to United Kingdom inheritance tax.

1.5 **Close Companies**

Shareholders who are resident or, in the case of individuals, resident or ordinarily resident in the UK, who hold, alone or together with associated persons, an interest of more than 10 per cent. in the Company could, under the provisions of Section 13 of the Taxation of Chargeable Gains Act 1992, in certain circumstances, be subject to United Kingdom tax in respect of a portion of capital gains made by non-UK resident subsidiaries of the Company if the Company itself is considered to be a "close" company for the purposes of these rules. The Company currently considers that it is not a "close" company for these purposes. "Close" company status is a question of fact which turns upon the extent of shareholders' holdings in the Company and the relationships between such shareholders. Accordingly, whether or not the Company is considered to be a "close" company currently or in the future may be determined by factors outside the Company's direct control.

2 Swiss taxation

The following paragraphs discuss Swiss Withholding Tax and the position on Swiss tax for Shareholders who are initial purchasers of Ordinary Shares. This is a general summary of certain tax consequences of the ownership of the Ordinary Shares. These discussions are based, as applicable, on the tax laws, regulations, decrees, rulings, income tax conventions (treaties), administrative practice and judicial decisions of Switzerland as in effect on the date of this Prospectus which are subject to change (or subject to changes in interpretations), possibly with retrospective effect. This is not a complete analysis of the potential tax effects relevant to owning Ordinary Shares, nor does the following summary take into account or discuss the tax laws of any jurisdiction other than Switzerland. It also does not take into account investors' individual circumstances. This summary does not purport to be a legal opinion or to address all tax aspects that may be relevant to a holder of Ordinary Shares. Investors are advised to consult their own tax advisers as to Swiss or other tax consequences of the acquisition, ownership and disposition of the Ordinary Shares. Tax consequences may differ according to the provisions of different double taxation treaties and the investor's particular circumstances. The statements and discussion of Swiss taxes set out below are of a general nature and do not relate to persons in the business of buying and selling shares or other securities.

Swiss Withholding Tax

Any dividends and similar cash or in-kind distributions of profit and reserves other than Qualifying Reserves made by the Company in respect of the Ordinary Shares, including stock dividends and the distribution of any liquidation proceeds in excess of nominal share capital and Qualifying Reserves, will be subject to Swiss Federal Withholding tax (*Verrechnungssteuer*) ("**Swiss Withholding Tax**") imposed on the gross amount at the then prevailing rate (currently 35 per cent.).

For distributions subject to Swiss Withholding Tax, the Company may only pay out 65 per cent. of the gross amount of any dividend and similar distributions to the holders of Ordinary Shares. A portion equal to 35 per cent. of the gross amount of such dividends and similar distributions must be paid to the Swiss Federal Tax Administration. The redemption of Ordinary Shares by the Company may under certain circumstances (in particular, if the Ordinary Shares are redeemed for subsequent cancellation) be taxed as a partial liquidation for Swiss Withholding Tax purposes, with the effect that Swiss Withholding Tax at the then prevailing rate (currently 35 per cent.) is due on the difference between the redemption price and nominal value plus proportionate Qualifying Reserves of the redeemed Ordinary Shares.

However, dividends and similar distributions out of Qualifying Reserves and repayments of the nominal share capital will not be subject to Swiss Withholding Tax. A ruling from the Swiss Federal Tax Administration signed 7 January 2011 confirmed that Qualifying Reserves of approximately U.S.$8.8 billion will be created on the Restructuring. The Global Offer will create additional Qualifying Reserves equal to the share premium of the Ordinary Shares issued. This ruling is binding on the Swiss Federal Tax Administration, provided that, among other things, full disclosure of the facts and circumstances of the Restructuring have been provided to the Swiss Federal Tax Administration (which the Company believes is the case), the terms of the ruling are complied with and the relevant facts and applicable laws, regulations and administrative practice remain unchanged. It is at the discretion of the Company's shareholders to decide (at a shareholders' meeting) whether to distribute a dividend out of Qualifying Reserves free of Swiss Withholding Tax and/or out of profit/retained earnings/non-qualifying reserves subject to Swiss Withholding Tax. Once cumulative distributions out of Qualifying Reserves exceed the value threshold described above, any distributions paid by the Company will be subject to Swiss Withholding Tax. To the extent that additional shares are issued by the Company in the future, the value of the distributions which can be made free of Swiss Withholding Tax will be increased by an amount corresponding to the total nominal share capital and paid-in capital/share premium of the shares issued.

Swiss resident beneficiaries of taxable dividends and similar distributions in respect of the Ordinary Shares are entitled to full subsequent relief of the Swiss Withholding Tax, either through a tax refund or tax credit against their income tax liability, if they duly report the underlying income in their tax returns or financial statements used for tax purposes, as the case may be, and if there is no tax avoidance. Non-Swiss resident beneficiaries of dividends and similar distributions in respect of Ordinary Shares may be entitled to a partial or full credit of the Swiss Withholding Tax in accordance

with any applicable double taxation convention between Switzerland and the beneficiary's country of tax residence.

Income and profit tax

Income tax for individuals holding the shares as private assets: Individuals who are resident in Switzerland for tax purposes and hold Ordinary Shares as part of his or her private assets (*Privatvermögen*) who receive dividends and similar distributions (including stock dividends and liquidation proceeds in excess of nominal share capital and Qualifying Reserves) from the Company must include these distributions in his or her personal tax return and will be subject to federal, cantonal and communal income tax on any net taxable income for the relevant tax period. However, dividends and similar distributions out of Qualifying Reserves and repayments of the nominal share capital will not be subject to federal, cantonal and communal income tax. Stock dividends may be treated differently for cantonal and communal taxes depending on the canton of residency. The Direct Federal Tax on dividends and similar distributions (including stock dividends and liquidation proceeds in excess of nominal share capital and Qualifying Reserves) from the Company is reduced to 60 per cent. of regular taxation (*Teilbesteuerung*) if the investment amounts to at least 10 per cent. of nominal share capital of the Company. Most cantons have already introduced or will introduce a similar partial taxation on a cantonal and communal level.

Income tax for individuals holding the shares as business assets: Swiss resident individuals holding Ordinary Shares as business assets, as well as non-Swiss resident individuals holding the shares as part of a permanent establishment or a fixed place of business receiving dividends and similar distributions (including stock dividends and liquidation proceeds in excess of nominal share capital and Qualifying Reserves) from the Company, must include these distributions in his or her income statement and will be subject to federal, cantonal and communal income tax on any net taxable income for the relevant tax period. The Direct Federal Tax on dividends and similar distributions (including stock dividends and liquidation proceeds in excess of nominal share capital and Qualifying Reserves) from the Company is reduced to 50 per cent. of regular taxation (*Teilbesteuerung*), if the investment is held as a business asset in terms of Swiss tax law and amounts to at least 10 per cent. of the nominal share capital of the Company. Most cantons have already introduced or will introduce a similar partial taxation on a cantonal and communal level.

Profit tax for legal entities: Legal entities resident in Switzerland or non-Swiss resident entities holding Ordinary Shares as part of a Swiss permanent establishment are required to include all taxable distributions received on the Ordinary Shares in their profit and loss statement relevant for profit tax purposes and will be subject to federal, cantonal and communal corporate profit tax on any net taxable earnings for such period. A Swiss corporation or co-operative, or a non-Swiss corporation or co-operative holding Ordinary Shares as part of a Swiss permanent establishment, may under certain circumstances, benefit from taxation relief with respect to distributions (*Beteiligungsabzug*), provided such Ordinary Shares represent at the time of the distribution at least 10 per cent. of the share capital or 10 per cent. of the profit and reserves, respectively, or a fair market value of at least 1 million Swiss francs.

A holder of Ordinary Shares who is not a resident of Switzerland for tax purposes will not be liable for any Swiss income or profit taxes on dividends and similar distributions with respect to the Ordinary Shares, unless the Ordinary Shares are attributable to a permanent establishment or a fixed place of business maintained in Switzerland by such non-Swiss resident.

Net worth and capital taxes

An individual who is a Swiss resident for tax purposes, or a non-Swiss resident holding Ordinary Shares as part of a permanent establishment or fixed place of business situated in Switzerland, is required to include his or her Ordinary Shares in his or her assets which are subject to cantonal and communal net worth taxes. No net worth tax is levied at the federal level.

Legal entities resident in Switzerland or non-Swiss resident legal entities with a Swiss permanent establishment are subject to cantonal and communal capital tax. The cantonal and communal capital tax is levied on the basis of the taxable equity of the legal entities. Usually, the acquisition of Ordinary Shares should not influence the equity of a legal entity and should therefore have no or only limited influence on its capital tax charge. However, the acquisition of Ordinary Shares may change the basis

for international or inter-cantonal allocation of the taxable equity of the legal entity. No capital tax is levied at the federal level.

Taxes on capital gains upon disposal of Ordinary Shares

Individuals: Individuals who are resident in Switzerland for tax purposes and hold Ordinary Shares as part of his or her private assets (*Privatvermögen*) generally are exempt from Swiss federal, cantonal and communal taxes with respect to capital gains realised upon the sale or other disposal of Ordinary Shares, unless such individuals are qualified as professional securities dealers (*Wertschriftenhändler*) for income tax purposes. Under certain circumstances, share sale proceeds of a private individual may be recharacterised into taxable investment income. Upon a repurchase of Ordinary Shares by the Company, the portion of the repurchase price in excess of the nominal amount and Qualifying Reserves may be classified as taxable investment income if the Ordinary Shares repurchased are not sold within a six-year period or if the Ordinary Shares are repurchased for a capital reduction. Capital gains realised by an individual on Ordinary Shares that are held as part of its business assets are subject to income taxation and social security contributions. Capital gains realised by individuals who, for income tax purposes, are classified as professional securities dealers are subject to income taxation and social security contributions. Certain reductions or partial taxation similar to those mentioned above for dividends (*Teilbesteuerung*) may be available for capital gains realised upon the sale of Ordinary Shares if certain conditions are met. The entitlement of shareholders to such reductions must be assessed on an individual basis and shareholders should consult their own legal, financial or tax advisers.

Legal entities: Capital gains upon the sale or other disposal of Ordinary Shares realised by legal entities resident in Switzerland for tax purposes or foreign legal entities holding Ordinary Shares as part of a Swiss permanent establishment are generally subject to ordinary profit taxation. A Swiss corporation or co-operative, or non-Swiss corporation or co-operative holding Ordinary Shares as part of a Swiss permanent establishment, may, under certain circumstances, benefit from taxation relief on capital gains realised upon the disposal of Ordinary Shares (*Beteiligungsabzug*), provided such Ordinary Shares were held for at least one year and the shareholder disposes at least 10 per cent. of the share capital or 10 per cent. of the profit and reserves, respectively. Subsequent sales can be less than 10 per cent. of the nominal share capital in order to qualify for the participation relief, provided the fair market value of the Ordinary Shares held as per the previous financial year end prior to this sale amounts to at least 1 million Swiss francs.

Non-resident individuals and legal entities: Individuals and legal entities which are not Swiss residents for tax purposes and do not hold Ordinary Shares as part of a Swiss business operation or a Swiss permanent establishment or fixed place of business situated in Switzerland are generally not subject to Swiss income or profit taxes on gains realised upon the disposal of the Ordinary Shares.

Gift and inheritance taxes

The transfer of Ordinary Shares may be subject to cantonal and/or communal gift, estate or inheritance taxes if the donor is, or the deceased was, resident for tax purposes in a canton levying such taxes.

Federal stamp tax upon issuance and transfer of Ordinary Shares

A one time federal insurance stamp tax (*Emissionsabgabe*) will be payable on the issue of new Ordinary Shares at the then prevailing rate (currently one per cent.). This tax will be payable by the Company.

The transfer of any Ordinary Shares may be subject to a federal transfer stamp tax (*Umsatzabgabe*) at a current rate of up to 0.30 per cent. if such transfer occurs through or with a Swiss or Liechtenstein bank or securities dealer as defined in the Swiss Federal Stamp Tax Act.

3 Jersey taxation

The following summary of the anticipated treatment of the Company and holders of Ordinary Shares (other than residents of Jersey) is based on Jersey taxation law and practice as it is understood to apply at the date of this Prospectus. It does not constitute legal or tax advice and does not address all aspects of Jersey tax law and practice. Shareholders should consult their professional advisers on the

implications of acquiring, buying, holding, selling or otherwise disposing of Ordinary Shares under the laws of the jurisdictions in which they may be liable to taxation. Shareholders should be aware that tax laws, rules and practice and their interpretation may change.

Taxation of the Company

Jersey taxation legislation provides that the general basic rate of income tax on the profits of companies regarded as resident in Jersey or having a permanent establishment in Jersey will be zero per cent. and that only a limited number of financial services companies shall be subject to income tax at a rate of ten per cent.

The Comptroller of Taxes has confirmed that the Company shall not be regarded as resident in Jersey so long as it satisfies the conditions set out in Article 123(1)(a) of the Income Tax (Jersey) Law 1961, and therefore the Company will not (except as noted below) be liable to Jersey income tax.

If the Company derives any income from the ownership, disposal or exploitation of land in Jersey, such income will be subject to Jersey income tax at the rate of 20 per cent. It is not expected that the Company will derive any such income.

A 3 per cent. (5 per cent. from 1 June 2011) goods and services tax is generally paid in Jersey on the sale or exchange of goods and services in Jersey. All businesses with a 12-month taxable turnover in excess of £300,000 must, by Jersey law, register for this tax unless they are an international services entity ("ISE"). For so long as the Company is an ISE within the meaning of the Goods and Services (Jersey) Law 2007, having satisfied the requirements of the Goods and Services Tax (International Services Entities) (Jersey) Regulations 2008, as amended, a supply of goods or services made by or to the Company shall not be a taxable supply for the purposes of Jersey law.

Taxation of holders of Ordinary Shares

The Company will be entitled to pay dividends to holders of Ordinary Shares without any withholding or deduction for, or on account of, Jersey tax. The holders of Ordinary Shares (other than residents of Jersey) will not be subject to any tax in Jersey in respect of the holding, sale or other disposition of such Ordinary Shares.

Stamp duty

No stamp duty is payable in Jersey on the issue or *inter vivos* transfer of the Ordinary Shares.

Upon the death of a holder of the Ordinary Shares, a grant of probate or letters of administration will be required to transfer the Ordinary Shares of the deceased person, except that where the deceased person was domiciled outside of Jersey at the time of death, the Company may (at its discretion) dispense with this requirement where the value of the deceased's movable estate in Jersey does not exceed £10,000.

Upon the death of a holder of the Ordinary Shares, Jersey stamp duty will be payable on the registration in Jersey of a grant of probate or letters of administration, which will be required in order to transfer or otherwise deal with:

(a) (where the deceased person was domiciled in Jersey at the time of death) the deceased person's personal estate wherever situated (including any Ordinary Shares) if the net value of such personal estate exceeds £10,000; or

(b) (if the deceased person was domiciled outside of Jersey at the time of death) the deceased person's personal estate situated in Jersey (including any Ordinary Shares) if the net value of such personal estate exceeds £10,000.

The rate of stamp duty payable is:

(i) (where the net value of the deceased person's relevant personal estate does not exceed £100,000) 0.5 per cent. of the net value of the deceased person's relevant personal estate; or

(ii) (where the net value of the deceased person's relevant personal estate exceeds £100,000) £500 for the first £100,000 plus 0.75 per cent. of the net value of the deceased person's relevant personal estate which exceeds £100,000.

In addition, application and other fees may be payable.

Jersey does not otherwise levy taxes upon capital, inheritances, capital gains or gifts, nor are there any other estate duties.

4 U.S. taxation

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

TO ENSURE COMPLIANCE WITH TREASURY DEPARTMENT CIRCULAR 230, HOLDERS ARE HEREBY NOTIFIED THAT: (A) ANY DISCUSSION OF FEDERAL TAX ISSUES IN THIS PROSPECTUS IS NOT INTENDED OR WRITTEN TO BE RELIED UPON, AND CANNOT BE RELIED UPON, BY HOLDERS FOR THE PURPOSE OF AVOIDING PENALTIES THAT MAY BE IMPOSED ON HOLDERS UNDER THE INTERNAL REVENUE CODE; (B) SUCH DISCUSSION IS INCLUDED HEREIN BY THE ISSUER IN CONNECTION WITH THE PROMOTION OR MARKETING (WITHIN THE MEANING OF CIRCULAR 230) BY THE ISSUER OF THE TRANSACTIONS OR MATTERS ADDRESSED HEREIN; AND (C) HOLDERS SHOULD SEEK ADVICE BASED ON THEIR PARTICULAR CIRCUMSTANCES FROM AN INDEPENDENT TAX ADVISER.

* * * * *

The following is a summary of certain material U.S. federal income tax consequences of the acquisition, ownership and disposition of Ordinary Shares by a U.S. Holder (as defined below). This summary deals only with initial purchasers of Ordinary Shares that are U.S. Holders that will hold the Ordinary Shares as capital assets. The discussion does not cover all aspects of U.S. federal income taxation that may be relevant to, or the actual tax effect that any of the matters described herein will have on, the acquisition, ownership or disposition of Ordinary Shares by particular investors, and does not address state, local, foreign or other tax laws. This summary also does not address tax considerations applicable to investors that own (directly, indirectly, or constructively) 10 per cent. or more of the voting stock of the Company, nor does this summary discuss all of the tax considerations that may be relevant to certain types of investors subject to special treatment under the U.S. federal income tax laws (such as financial institutions, insurance companies, investors liable for the alternative minimum tax, individual retirement accounts and other tax-deferred accounts, tax-exempt organisations, dealers in securities or currencies, investors that will hold the Ordinary Shares as part of straddles, hedging transactions or conversion transactions for U.S. federal income tax purposes or investors whose functional currency is not the U.S. dollar).

As used herein, the term "U.S. Holder" means a beneficial owner of Ordinary Shares that is, for U.S. federal income tax purposes, (i) an individual citizen or resident of the United States, (ii) a corporation created or organised under the laws of the United States or any State thereof, (iii) an estate the income of which is subject to U.S. federal income tax without regard to its source, or (iv) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or the trust has elected to be treated as a domestic trust for U.S. federal income tax purposes.

The U.S. federal income tax treatment of a partner in a partnership that holds Ordinary Shares will depend on the status of the partner and the activities of the partnership. Prospective purchasers that are partnerships should consult their tax advisers concerning the U.S. federal income tax consequences to their partners of the acquisition, ownership and disposition of Ordinary Shares by the partnership.

The summary assumes that the Company is not a passive foreign investment company (a "PFIC") for U.S. federal income tax purposes, which the Company believes to be the case. The Company's possible status as a PFIC must be determined annually and therefore may be subject to change. If the Company were to be a PFIC in any year, materially adverse consequences could result for U.S. Holders.

The summary is based on the tax laws of the United States, including the Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations thereunder, published rulings and court decisions, as well as on the income tax treaty between the U.S. and Switzerland (the "Treaty"), all as of the date hereof and all subject to change at any time, possibly with retroactive effect.

THE SUMMARY OF U.S. FEDERAL INCOME TAX CONSEQUENCES SET OUT BELOW IS FOR GENERAL INFORMATION ONLY. ALL PROSPECTIVE PURCHASERS SHOULD CONSULT

THEIR TAX ADVISERS AS TO THE PARTICULAR TAX CONSEQUENCES TO THEM OF OWNING THE ORDINARY SHARES, INCLUDING THEIR ELIGIBILITY FOR THE BENEFITS OF THE TREATY, THE APPLICABILITY AND EFFECT OF STATE, LOCAL, FOREIGN AND OTHER TAX LAWS AND POSSIBLE CHANGES IN TAX LAW.

Ordinary Shares

Dividends

General

Distributions paid by the Company out of current or accumulated earnings and profits (as determined for U.S. federal income tax purposes), before reduction for any Swiss Withholding Tax paid by the Company with respect thereto, will generally be taxable to a U.S. Holder as foreign source dividend income, and will not be eligible for the dividends received deduction allowed to corporations. Distributions in excess of current and accumulated earnings and profits will be treated as a non-taxable return of capital to the extent of the U.S. Holder's basis in the Ordinary Shares and thereafter as capital gain. However, the Company does not maintain calculations of its earnings and profits in accordance with U.S. federal income tax accounting principles. U.S. Holders should therefore assume that any distribution by the Company with respect to Ordinary Shares will constitute ordinary dividend income. U.S. Holders should consult their own tax advisers with respect to the appropriate U.S. federal income tax treatment of any distribution received from the Company.

Foreign Currency Dividends

Dividends paid in pounds sterling, euros or Swiss Francs will be included in income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the day the dividends are received by the U.S. Holder, regardless of whether the pounds sterling, euros or Swiss Francs are converted into U.S. dollars at that time. If dividends received in pounds sterling, euros, or Swiss Francs are converted into U.S. dollars at the spot rate on the day they are received, the U.S. Holder generally will not be required to recognise foreign currency gain or loss in respect of the dividend income.

Effect of Swiss Withholding Taxes

As discussed in "Swiss Taxation—Withholding Tax", under current law payments of dividends by the Company out of reserves other than Qualifying Reserves are subject to Swiss Withholding Tax at the then prevailing rate (currently 35 per cent.). The rate of withholding tax applicable to U.S. Holders that are eligible for benefits under the Treaty is reduced to a maximum of 15 per cent. For U.S. federal income tax purposes, U.S. Holders will be treated as having received the amount of Swiss taxes withheld by the Company, and as then having paid over the withheld taxes to the Swiss taxing authorities. As a result of this rule, the amount of dividend income included in gross income for U.S. federal income tax purposes by a U.S. Holder with respect to a payment of dividends will be greater than the amount of cash actually received (or receivable) by the U.S. Holder from the Company with respect to the payment.

A U.S. Holder will generally be entitled, subject to certain limitations, to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for Swiss income taxes withheld by the Company. U.S. Holders that are eligible for benefits under the Treaty will not be entitled to a foreign tax credit for the amount of any Swiss taxes withheld in excess of the 15 per cent. maximum rate, and with respect to which the holder is entitled to obtain a refund from the Swiss taxing authorities.

For purposes of the foreign tax credit limitation, foreign source income is classified in one of two "baskets", and the credit for foreign taxes on income in any basket is limited to U.S. federal income tax allocable to that income. Dividends paid by the Company generally will constitute foreign source income in the "passive income" basket.

U.S. Holders that are accrual basis taxpayers, and who do not otherwise elect, must translate Swiss taxes into U.S. Dollars at a rate equal to the average exchange rate for the taxable year in which the taxes accrue, while all U.S. Holders must translate taxable dividend income into U.S. Dollars at the spot rate on the date received. This difference in exchange rates may reduce the U.S. dollar value of the credits for Swiss taxes relative to the U.S. Holder's U.S. federal income tax liability attributable to a dividend. However, cash basis and electing accrual basis U.S. Holders may translate Swiss taxes into

U.S. Dollars using the exchange rate in effect on the day the taxes were paid. Any such election by an accrual basis U.S. Holder will apply for the taxable year in which it is made and all subsequent taxable years, unless revoked with the consent of the IRS.

Prospective purchasers should consult their tax advisers concerning the foreign tax credit implications of the payment of Swiss taxes.

Sale or other Disposition

Upon a sale or other disposition of Ordinary Shares, a U.S. Holder generally will recognise capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between the amount realised on the sale or other disposition and the U.S. Holder's adjusted tax basis in the Ordinary Shares. This capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in the Ordinary Shares exceeds one year.

A U.S. Holder's tax basis in an Ordinary Share will generally be its U.S. dollar cost. The U.S. dollar cost of an Ordinary Share purchased with foreign currency will generally be the U.S. dollar value of the purchase price on the date of purchase, or the settlement date for the purchase, in the case of Ordinary Shares traded on an established securities market, within the meaning of the applicable Treasury Regulations, that are purchased by a cash basis U.S. Holder (or an accrual basis U.S. Holder that so elects). Such an election by an accrual basis U.S. Holder must be applied consistently from year to year and cannot be revoked without the consent of the IRS. The amount realised on a sale or other disposition of Ordinary Shares for an amount in foreign currency will be the U.S. dollar value of this amount on the date of sale or disposition. On the settlement date, the U.S. Holder will recognise U.S. source foreign currency gain or loss (taxable as ordinary income or loss) equal to the difference (if any) between the U.S. dollar value of the amount received based on the exchange rates in effect on the date of sale or other disposition and the settlement date. However, in the case of Ordinary Shares traded on an established securities market that are sold by a cash basis U.S. Holder (or an accrual basis U.S. Holder that so elects), the amount realised will be based on the exchange rate in effect on the settlement date for the sale, and no exchange gain or loss will be recognised at that time.

Disposition of Foreign Currency

Foreign currency received on the sale or other disposition of an Ordinary Share will have a tax basis equal to its U.S. dollar value on the settlement date. Foreign currency that is purchased will generally have a tax basis equal to the U.S. dollar value of the foreign currency on the date of purchase. Any gain or loss recognised on a sale or other disposition of a foreign currency (including its use to purchase Ordinary Shares or upon exchange for U.S. dollars) will be U.S. source ordinary income or loss.

Passive Foreign Investment Company Considerations

A foreign corporation will be a PFIC in any taxable year in which, after taking into account the income and assets of the corporation and certain subsidiaries pursuant to applicable "look-through rules," either (i) at least 75 per cent. of its gross income is "passive income" or (ii) at least 50 per cent. of the average value of its assets is attributable to assets which produce passive income or are held for the production of passive income. The Company does not believe that it was a PFIC for its preceding year and does not expect to be or become a PFIC for U.S. federal income tax purposes. Although income from the sales of commodities is generally passive income, a special rule treats active business gains from the sales of commodities as non-passive income provided certain requirements are met. To the extent the Company derives income from the sale of commodities, the Company believes that it currently meets these requirements. The Company's possible status as a PFIC must be determined annually, however, and may be subject to change if the Company fails to qualify under this special rule for any year in which a U.S. Holder holds Ordinary Shares.

If the Company were to be treated as a PFIC, U.S. Holders of Ordinary Shares would be required (i) to pay a materially greater amount of tax on certain distributions and gains on sale and (ii) to pay tax on any gain from the sale of Ordinary Shares at ordinary income (rather than capital gains) rates in addition to paying a materially greater amount of tax on this gain. Prospective purchasers should consult their tax advisers regarding the potential application of the PFIC regime.

Backup Withholding and Information Reporting

Payments of dividends and other proceeds with respect to Ordinary Shares, by a U.S. paying agent or other U.S. intermediary will be reported to the IRS and to the U.S. Holder as may be required under applicable regulations. Backup withholding may apply to these payments if the U.S. Holder fails to provide an accurate taxpayer identification number or certification of exempt status or fails to report all interest and dividends required to be shown on its U.S. federal income tax returns. Certain U.S. Holders are not subject to backup withholding. U.S. Holders should consult their tax advisers as to their qualification for exemption from backup withholding and the procedure for obtaining an exemption.

Reportable Transactions

A U.S. taxpayer that participates in a "reportable transaction" will be required to disclose its participation to the IRS. Under the relevant rules, if the Ordinary Shares are denominated in a foreign currency, a U.S. Holder may be required to treat a foreign currency exchange loss from the Ordinary Shares as a reportable transaction if this loss exceeds the relevant threshold in the regulations (U.S.$50,000 in a single taxable year, if the U.S. Holder is an individual or trust, or higher amounts for other non-individual U.S. Holders), and to disclose its investment by filing Form 8886 with the IRS. A penalty in the amount of U.S.$10,000 in the case of a natural person and U.S.$50,000 in all other cases is generally imposed on any taxpayer that fails to timely file an information return with the IRS with respect to a transaction resulting in a loss that is treated as a reportable transaction. Prospective purchasers are urged to consult their tax advisers regarding the application of these rules.

Foreign Financial Asset Reporting

Recently enacted legislation imposes new reporting requirements on the holding of certain foreign financial assets, including equity of foreign entities, if the aggregate value of all of these assets exceeds $50,000. The Ordinary Shares are expected to constitute foreign financial assets subject to these requirements unless the Ordinary Shares are held in an account at a domestic financial institution. U.S. Holders should consult their tax advisers regarding the application of this legislation.

5 Hong Kong taxation

The summary in the following paragraphs is intended for general information only and therefore does not constitute, in whole or in part, an expression of an opinion. The summary is based solely upon the information, documents, facts and assumptions which are included or referenced in the following paragraphs. Only the following specific Hong Kong tax issues and tax consequences are discussed and no other taxes of any kind are considered. The summary is based on the relevant laws, regulations, and interpretations of Hong Kong (the "authorities") that are in effect as of the date of this Prospectus. The authorities are subject to change, which may be retroactive in their effect. Any changes or developments that may affect the summary or any matters set forth herein and, in particular, any subsequent event after the date of this Prospectus will not be taken into consideration. In addition, the summary is not binding on the tax authorities or the courts and should not be considered as any representation, warranty, or guarantee that the tax authorities or the courts will concur with the summary. Any person who is in any doubt as to his or her tax position should consult his or her tax advisers immediately.

Tax on dividends

If the Company is chargeable to Hong Kong profits tax and a dividend is received from the Company, such dividend is specifically exempted from tax in Hong Kong under Hong Kong tax legislation. In other cases, i.e. where the dividend is received from the Company and the Company is not chargeable to Hong Kong profits tax, the current practice of the Hong Kong Inland Revenue Department is that no tax is charged in Hong Kong on such a dividend.

Tax on gains and profits tax

Chargeability to Hong Kong profits tax on gains from the sale of assets depends on the nature and source of the gains. No tax is imposed in respect of gains arising from the sale of capital assets. Trading gains from the sale of assets by persons carrying on a trade, profession or business in Hong Kong where the gains are derived from or arise in Hong Kong will be subject to Hong Kong profits

tax, which is currently imposed at the rate of 16.5 per cent. on corporations and at a maximum rate of 15 per cent. on individuals.

In accordance with the prevailing practice of the Hong Kong Inland Revenue Department, the source of gains from the purchase and sale of listed shares through a stock exchange is ascertained by the location of the stock exchange where the shares in question are traded. In respect of the gains from the sale of Ordinary Shares through the Hong Kong Stock Exchange, the seller will be subject to Hong Kong profits tax if the seller carries on a trade, profession or business in Hong Kong and holds the Ordinary Shares for trading purposes.

Stamp duty

No Hong Kong stamp duty will be payable on the new issue of Ordinary Shares by the Company.

Hong Kong stamp duty will be payable by the purchaser on every purchase and by the seller on every sale of Hong Kong stock. Hong Kong stock is defined as "stock the transfer of which is required to be registered in Hong Kong" and includes Ordinary Shares traded through the Hong Kong Stock Exchange. The duty is charged at the *ad valorem* rate of 0.1 per cent. of the consideration for, or (if greater) the value of, the shares transferred on each of the seller and purchaser. In other words, a total of 0.2 per cent. would currently be payable on a typical sale and purchase transaction with respect to the transfer of the Company's Ordinary Shares through the Hong Kong Stock Exchange. In addition, any instrument of transfer (if required) will be subject to a flat rate of stamp duty of HK$5.00. The agent or, where no agent, the principal effecting the sale or purchase is liable for the payment of the stamp duty.

The purchaser and the seller of Ordinary Shares traded through the Hong Kong Stock Exchange are subject to Hong Kong stamp duty.

SECTION X: ADDITIONAL INFORMATION

1 Responsibility

1.1 The Company and the Directors, whose names and principal functions are set out in Section II: "Directors and Corporate Governance", accept responsibility for the information contained in this Prospectus. To the best of the knowledge of the Company and the Directors (each of whom has taken all reasonable care to ensure that such is the case), the information contained in this Prospectus is in accordance with the facts and does not omit anything likely to affect the import of such information.

1.2 Deloitte LLP accepts responsibility for the purposes of Prospectus Rule 5.5.3R (2)(f) for its reports on the historical financial information and the unaudited pro forma financial information of Glencore set out in Sections VI: "Historical and Financial Information" and VII: "Unaudited Pro Forma Financial Information" of this Prospectus, and has taken all reasonable care to ensure that the information contained in these reports is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

1.3 Mr Emerson accepts responsibility for the purposes of Prospectus Rule 5.5.3R (2)(f) for the mineral reserve and resources information in relation to AR Zinc, Los Quenuales and Sinchi Wayra as set out in Section I: "Information on Glencore" and confirms that he has taken all reasonable care to ensure that the relevant information, to the best of his knowledge, is in accordance with the facts and contains no omission likely to affect its import. Mr Emerson has consented to and not withdrawn his consent for inclusion of his name in the Prospectus, in the form and context in which such references appear.

1.4 Mr Simpson and Mr Hosken each accept responsibility for the purposes of Prospectus Rule 5.5.3R (2)(f) for the mineral reserves and resources information in relation to Cobar as set out in Section I: "Information on Glencore" and confirm that they have each taken all reasonable care to ensure that the relevant information, to the best of their knowledge, is in accordance with the facts and contains no omission likely to affect its import. Mr Simpson and Mr Hosken have each consented to and not withdrawn their respective consents for inclusion of their names in the Prospectus, in the form and context in which such references appear.

1.5 Mr Willem Van der Schyff accepts responsibility for the purposes of Prospectus Rule 5.5.3R (2)(f) for the mineral reserves and resources information in relation to Kansuki as set out in Section I: "Information on Glencore" and confirms that he has taken all reasonable care to ensure that the relevant information, to the best of his knowledge, is in accordance with the facts and contains no omission likely to affect its import. Mr Van der Schyff has consented to and not withdrawn his consent for inclusion of his name in the Prospectus, in the form and context in which such references appear.

1.6 Mr Selfe, Mr King, Mr Fowler and Mr O'Callaghan each accept responsibility for the purposes of Prospectus Rule 5.5.3R (2)(f) for the mineral reserves and resources information in relation to Murrin Murrin as set out in Section I: "Information on Glencore" and confirm that they have taken all reasonable care to ensure that the relevant information, to the best of their knowledge, is in accordance with the facts and contains no omission likely to affect its import. Mr Selfe, Mr King, Mr Fowler and Mr O'Callaghan have each consented to and not withdrawn their respective consents for inclusion of their names in the Prospectus, in the form and context in which such references appear.

1.7 Mr Denner and Mr Dippenaar each accept responsibility for the purposes of Prospectus Rule 5.5.3R (2)(f) for the mineral reserves and resources information in relation to Shanduka as set out in Section I: "Information on Glencore" and confirm that they have taken all reasonable care to ensure that the relevant information, to the best of their knowledge, is in accordance with the facts and contains no omission likely to affect its import. Mr Denner and Mr Dippenaar have each consented to and not withdrawn their respective consents for inclusion of their names in the Prospectus, in the form and context in which such references appear.

2 Incorporation and registered office

2.1 The Company was incorporated and registered in Jersey on 14 March 2011 as a public company limited by shares under the Jersey Companies Law with the name Glencore International

Limited and with the registered number 107710. The Company changed its name to Glencore International plc on 12 April 2011 pursuant to a special resolution.

2.2 The Company's registered office is at Queensway House, Hilgrove Street, St Helier, Jersey JE1 1ES (telephone number +44 1534 281800) and its principal place of business is Baarermattstrasse 3, PO Box 777, CH-6341 Switzerland.

2.3 The principal legislation under which the Company operates, and under which the Ordinary Shares were created, is the Jersey Companies Law.

2.4 The principal business of the Company will be to act as the ultimate holding company of the Glencore Group.

2.5 The accounting reference date of the Company is 31 December.

3 The Restructuring

The Restructuring will be implemented prior to UK Admission and will result in the Company becoming the new ultimate parent company of the Glencore Group, and the direct owner of 100 per cent. of the issued share capital of Glencore International at UK Admission. After the Price Determination Date, profit participation certificates issued by Glencore International (further details which are set out in note 14 to Sub-section B of Section VI: "Historical Financial Information") will be exchanged for new shares in Glencore Holding AG, the current parent company of Glencore International. Glencore Holding AG and Glencore L.T.E. AG (which is the other current shareholder of Glencore International) will then simultaneously merge with Glencore International by way of a statutory merger under Swiss law, with Glencore International as the surviving entity. After completion of this merger and before UK Admission, 100 per cent. of the issued shares in Glencore International will be contributed to the Company in consideration of the issue of new shares by the Company. If the Restructuring is not implemented in all material respects as described, the Global Offer will not proceed and Admission will not occur.

4 Subsidiaries

The Company is the ultimate holding company of the Glencore Group. The following table shows details of the Company's significant subsidiaries and undertakings. The issued share capital of each of these companies is fully paid.

Name of Subsidiary	Country of incorporation	Principal Activities	Percentage held by the Company	Publicly traded (✓/×)
Glencore AG	Switzerland	Operating	100.0	×
—Allied Alumina Inc. (Sherwin Alumina)	U.S.	Alumina production	100.0	×
—Columbia Falls	U.S.	Aluminium production	100.0	×
—Century Aluminum	U.S.	Aluminium production	44.0[1]	✓
—Glencore Funding LLC	U.S.	Finance	100.0	×
Polymet[2]	Canada	Copper production	9.3	✓
Glencore UK Ltd	UK	Operating	100.0	×
—Glencore Commodities Ltd	UK	Operating	100.0	×
—Glencore Energy UK Ltd	UK	Operating	100.0	×
Glencore Group Funding Limited	UAE	Finance	100.0	×
—Glencore Finance (Bermuda) Ltd	Bermuda	Finance	100.0	×
—Los Quenuales	Peru	Zinc/Lead production	97.1	×
—Glencore Finance (Europe) SA	Luxembourg	Finance	100.0	×
—Kansuki	DRC	Copper production	37.5	×
—Mineria Altos de Punitaqui	Chile	Copper production	100.0	×
—Mopani	Zambia	Copper production	73.1	×
—Mutanda	DRC	Copper production	40.0	×
—Prodeco	Colombia	Coal production	100.0	×
—Recylex	France	Zinc/Lead production	32.2	✓
—Sinchi Wayra	Bolivia	Zinc/Tin production	100.0	×
—UC Rusal	Jersey	Aluminium production	8.75	✓
Finges Investment B.V.	Netherlands	Finance	100.0	×
—Biopetrol Industries AG[3]	Switzerland	Biodiesel production	60.3	✓
—Glencore Grain B.V	Netherlands	Operating	100.0	×
—Nyrstar	Belgium	Zinc production	7.8	✓
—Rio Vermelho	Brazil	Sugar cane/ethanol production	76.0	×
—Xstrata	UK	Diversified production	34.5	✓

Name of Subsidiary	Country of incorporation	Principal Activities	Percentage held by the Company	Publicly traded (✓/×)
AR Zinc	Argentina	Zinc/Lead production	100.0	×
Blackthorn Resources[4]	Australia	Zinc, Copper, Gold, Nickel production	13	✓
Chemoil[5]	Singapore	Oil storage	51.5	✓
Cobar	Australia	Copper production	100.0	×
Glencore Exploration (EG) Ltd	Bermuda	Oil exploration/development	100.0	×
Glencore Singapore Pte Ltd	Singapore	Operating	100.0	×
Kazzinc	Kazakhstan	Zinc/Lead production	50.7[6]	×
—VasGold	Kazakhstan	Gold production	100.0	×
Katanga[7]	Bermuda	Copper production	74.4	✓
Murrin Murrin[8]	Australia	Nickel production	40.0	×
Minara[9]	Australia	Nickel production	70.5	✓
Moreno	Argentina	Edible oils production	100.0	×
Pacorini Group	Switzerland	Metals warehousing	100.0	×
Pasar	Philippines	Copper production	78.2	×
Portovesme S.r.L	Italy	Zinc/Lead production	100.0	×
OAO RussNeft (various companies)[10]	Russia	Oil production	40.0 – 49.0	×
Shanduka Coal	South Africa	Coal production	70.0	×
ST Shipping	Singapore	Operating	100.0	×
Topley	British Virgin Islands	Ship owner	100.0	×
Volcan	Peru	Zinc production	5.94	✓

Notes:

(1) Represents Glencore's economic interest in Century, comprising 39.1 per cent. voting interest and 4.9 per cent. non-voting interest.

(2) Publicly traded on the Toronto Stock Exchange under the symbol POM and on the New York Stock Exchange under symbol PLM.

(3) Publicly traded on the Frankfurt Stock Exchange under symbol A0HNQ5. Glencore owns 46,812,601 shares.

(4) Publicly traded on the Australian Stock Exchange under symbol BTR. Subject to final regulatory approvals, Glencore owns 16,032,700 shares.

(5) Publicly traded on the Singapore Exchange under the symbol CHEL.SI. Glencore owns 66,204,594 shares.

(6) Glencore has agreed to acquire additional stakes in Kazzinc thereby increasing its ownership to 93.0 per cent.

(7) Publicly traded on the Toronto Stock Exchange under the symbol KAT.TO. Glencore owns 1,419,031,161 shares.

(8) The balance of the joint venture is held by Minara, giving Glencore an effective interest of 82.4 per cent. in the joint venture.

(9) Publicly traded on the Australian Stock Exchange under the symbol MOR.AX. Glencore owns 824,829,760 shares.

(10) Although Glencore holds more than 20 per cent. of the voting rights, it has limited key management influence and thus does not exercise significant influence.

5 Share capital of the Company

5.1 The Company was incorporated on 14 March 2011 with the name "Glencore International Limited" and a share capital of U.S.$0.02 divided into two Ordinary Shares of U.S.$0.01 each, which were issued on incorporation to each of Computershare Company Secretarial Services (Jersey) Limited and Computershare Nominees (Channel Islands) Limited as nominees for Ivan Glasenberg and Steven Kalmin, respectively. On 20 April 2011, one Subscriber Share was transferred to each of Ivan Glasenberg and Steven Kalmin. The Subscriber Shares will be repurchased by the Company on 23 May 2011 at their nominal value and then cancelled.

5.2 The issued and fully paid share capital of the Company as at 29 April 2011, being the last practicable date prior to publication of this Prospectus, is as follows:

Class of shares	Number	Amount
Ordinary Shares	2	U.S.$0.02

5.3 Pursuant to the Glencore International Purchase Agreement, on the day before the date of UK Admission and in consideration of the transfer of all of the issued share capital of Glencore International to the Company by Revelstoke Limited, the Company will issue 6,000,000,000 Ordinary Shares at the Offer Price, credited as fully paid up, to Revelstoke Limited on behalf of the Existing Shareholders. The Sale Shares will be transferred to the Selling Shareholder

pursuant to the arrangements described in paragraph 1 of Section VIII: "Details of the Global Offer". The proposed issued and fully paid share capital of the Company as it is expected to be immediately following the acquisition by the Company of Glencore International becoming effective is as follows:

Class of shares	Number	Amount
Ordinary Shares	6,000,000,000	U.S.$60,000,000

5.4 On 3 May 2011, the Company passed a special resolution to authorise the purchase of the Subscriber Shares. On 3 May 2011, the Company entered into contracts to repurchase the Subscriber Shares at their nominal value on 23 May 2011.

5.5 By various written resolutions passed on 12 April 2011 and 3 May 2011, it was resolved by the holders of the Subscriber Shares that:

(a) the Company change its name from Glencore International Limited to Glencore International plc;

(b) the Company adopt the Articles, conditional on Admission;

(c) the authorised share capital of the Company be increased from U.S.$100 to U.S.$500,000,000 by the creation of an additional 49,999,990,000 Ordinary Shares;

(d) subject to UK Admission having occurred, authority be conferred on the Company's Directors pursuant to article 10.2(a) of the Articles to allot shares or grant rights to subscribe for or to convert any security into shares up to an aggregate nominal amount equal to the Authorised Allotment Amount (as defined in the Articles) for a period commencing on the date of Admission and ending at the conclusion of the Company's annual general meeting in 2012 or on 30 June 2012 (whichever is the earlier), and for the purposes of this resolution, the Authorised Allotment Amount (as defined in the Articles) shall be an amount equal to one-third of the New Issued Share Capital. For the purposes of this paragraph (d) and paragraphs (e), (f) and (g) below, the "New Issued Share Capital" is the nominal amount of the issued share capital of the Company immediately following UK Admission and as increased by any exercise of the Over-Allotment Option and/or the issue of the Kazzinc Consideration Shares;

(e) subject to UK Admission having occurred, authority be conferred on the Company's Directors pursuant to article 10.2(b) of the Articles to allot shares or grant rights to subscribe for or to convert any security into shares up to a further nominal amount equal to the Rights Issue Allotment Amount only in connection with a rights issue (as defined in the Articles) for a period commencing on the date of Admission and ending at the conclusion of the Company's annual general meeting in 2012 or on 30 June 2012 (whichever is the earlier) and, for the purposes of this resolution, the Rights Issue Allotment Amount (as defined in the Articles) shall be an amount equal to a further one-third of the New Issued Share Capital;

(f) subject to UK Admission having occurred, the Directors be empowered pursuant to article 10.3 of the Articles to allot equity securities (as defined in the Articles) wholly for cash:

(i) pursuant to the authority granted as described in paragraph (d) above in connection with a pre-emptive offer (as defined in the Articles);

(ii) pursuant to the authority granted as described in paragraph (e) above; and

(iii) up to an aggregate nominal amount equal to the Non-Pre-Emptive Amount (as defined in the Articles),

as if article 11 of the Articles (Pre-emption rights) did not apply and for the purposes of this resolution, the Non-Pre-Emptive Amount shall be an amount equal to 5 per cent. of the New Issued Share Capital. This power shall expire at the conclusion of the Company's annual general meeting in 2012 or on 30 June 2012 (whichever is the earlier);

(g) subject to UK Admission having occurred, the Company be generally and unconditionally authorised:

(i) pursuant to Article 57 of the Jersey Companies Law to make market purchases of Ordinary Shares, provided that:

(A) the maximum number of Ordinary Shares authorised to be purchased is the number equal to 10 per cent. of the number of Ordinary Shares comprising the New Issued Share Capital;

(B) the minimum price, exclusive of any expenses, which may be paid for an Ordinary Share is U.S.$0.01;

(C) the maximum price, exclusive of any expenses, which may be paid for an Ordinary Share shall be the higher of:

(I) an amount equal to 5 per cent. above the average of the middle market quotations for Ordinary Shares taken from the London Stock Exchange Daily Official List for the five business days immediately preceding the day on which such shares are contracted to be purchased; and

(II) the higher of the price of the last independent trade and the highest current independent bid on the London Stock Exchange Daily Official List at the time that the purchase is carried out; and

(D) the authority hereby conferred shall expire on the earlier of the conclusion of the Company's annual general meeting in 2012 or on 30 June 2012 (except that the Company may make a contract to purchase Ordinary Shares under this authority before such authority expires, which will or may be executed wholly or partly after the expiry of such authority, and may make purchases of Ordinary Shares in pursuance of any such contract as if such authority had not expired); and

(ii) pursuant to Article 58A of the Jersey Companies Law, to hold, if the Directors so desire, as treasury shares any Ordinary Shares purchased pursuant to the authority conferred by paragraph (i) above;

(h) the Glencore Deferred Bonus Plan, the Glencore Performance Share Plan and the Glencore Employee Share Trust be approved; and

(i) subject to UK Admission having occurred authority be conferred on the Directors to (i) allot (in addition to the authorities set out in paragraphs (d) to (f) above) shares sufficient to satisfy the rights of the investors in the Convertible Bonds to convert their bonds into Ordinary Shares of Glencore; and (ii) take any other action considered necessary or desirable by the Directors or the Company in assuming the obligations of Holdco under the terms and conditions of the Convertible Bonds.

5.6 Save as disclosed in this paragraph 5:

(a) there has been no change in the amount of the issued share or loan capital of the Company within three years of the date of this document; and

(b) no share or loan capital of the Company or any other member of the Glencore Group is under option or is, or will, immediately following UK Admission, be agreed, conditionally or unconditionally, to be put under option.

5.7 Save as disclosed in note 28 of the Historical Financial Information included in Section VI: "Historical Financial Information" of this Prospectus, there has been no change in the amount of the issued share or loan capital of any other member of the Glencore Group (other than intra-group issues by wholly-owned subsidiaries) within three years of the date of this Prospectus which is material in the context of the Glencore Group taken as a whole.

5.8 Save as disclosed in paragraph 18.6 below, the Company has no convertible securities, exchangeable securities or securities with warrants in issue.

6 Summary of the memorandum of association of the Company

Under the Jersey Companies Law, the capacity of a Jersey company is not limited by anything contained in its memorandum or Articles. Accordingly, the memorandum of association of a Jersey company does not contain an objects clause. The Company's memorandum of association is available for inspection at the addresses specified in paragraph 28 below.

7 Summary of the Articles of the Company

The Articles have been adopted conditional upon Admission and include provisions to the following effect:

7.1 Alteration of share capital

Subject to the provisions of the Jersey Companies Law, the Company may by special resolution reduce its share capital, share premium account or capital redemption reserve in any way.

7.2 Share rights

(a) Without prejudice to any special rights attached to any existing shares or class of shares, any share in the Company may be issued with such preferred, deferred or other special rights or restrictions as the Company may by special resolution determine.

(b) Subject to the provisions of the Jersey Companies Law, the special rights attached to any class of shares may be varied or abrogated either with the written consent of the holders of not less than three-quarters in nominal value of the issued shares of the class or the sanction of a special resolution passed at a separate meeting of the holders of the shares of the class.

7.3 Allotment of securities and pre-emption rights

(a) The Company may from time to time pass an ordinary resolution authorising the Directors of the Company to exercise all the powers of the Company to allot shares or grant rights to subscribe for or to convert any security into shares (i) generally up to the nominal amount specified in the resolution as being the Authorised Allotment Amount; and (ii) in connection with a rights issue only, up to a further nominal amount specified in the resolution as being the Rights Issue Allotment Amount. Any authority shall expire on the day specified in the resolution, not being more than five years after the date on which the resolution is passed.

(b) The Articles include pre-emption provisions requiring that equity securities issued for cash by the Company must first be offered to existing shareholders in proportion to their existing holdings of ordinary shares (excluding treasury shares). Exceptions to this rule include the allotment of:

(i) bonus shares;

(ii) equity securities to be paid up (either wholly or partly) otherwise than in cash; and

(iii) equity securities allotted for cash which are to be held under an employee share scheme.

(c) The Company may from time to time pass a special resolution empowering the Directors of the Company to exercise all the powers of the Company to allot equity securities wholly for cash:

(i) in connection with a rights issue;

(ii) in connection with a pre-emptive offer, up to an aggregate nominal amount specified in the resolution as being the Authorised Allotment Amount; and

(iii) otherwise than in connection with a rights issue or a pre-emptive offer, up to an aggregate nominal amount specified in the resolution as being the Non-Pre-Emptive Amount.

(d) Any authority shall expire on the day specified in the resolution, not being more than five years after the date on which the resolution is passed.

7.4 **Purchase of own shares and treasury shares**

Subject to the Jersey Companies Law and the Listing Rules:

(a) the Company may purchase any of its own shares of any class, including any redeemable shares, provided that any such purchase is first approved by special resolution; and

(b) the Company may hold as treasury shares any shares purchased or redeemed by it.

7.5 **Share certificates and uncertificated shares**

(a) Every holder of shares in certificated form whose name is entered on the Company's register of members is entitled, without payment, to a certificate in respect of such shares. In the case of joint holders, delivery of a certificate to one of the joint holders shall be sufficient delivery to all.

(b) Subject to the Jersey Companies Law and the CREST Regulations, the Directors may permit any class of shares to be held in uncertificated form and to be transferred by means of a relevant system and may revoke any such permission.

7.6 **Register of members**

The register of members of the Company must be kept in Jersey although branch registers may be kept in other territories.

7.7 **Calls on shares**

(a) The Directors may, from time to time, make calls upon the members in respect of any moneys unpaid on their shares, subject to the terms of allotment of such shares. Each member shall (subject to being given at least 14 clear days' notice in writing specifying the time or times and place of payment) pay to the Company the specified amount called on his shares.

(b) Unless the Directors decide otherwise, where a call is not paid on a share before or on the due date for payment, the person from whom it is due (and the Directors may also provide that he shall forfeit any dividends due in respect of the share) and shall not be entitled to vote at any meeting or upon a poll, or to exercise any privilege as a member in respect of the share, until he shall have paid all calls for the time being due and payable on the share held by him.

7.8 **Forfeiture and lien**

(a) If a member fails to pay in full any call or instalment of a call on or before the due date for payment, the Directors may, at any time thereafter, serve a notice in writing on him requiring payment of such unpaid amount together with any interest accrued thereon and any expenses incurred by the Company by reason of such non-payment. The notice shall state that, in the event of non-payment in accordance with the notice, the shares on which the call has been made will be liable to be forfeited. If the requirements of such notice are not met within the timeframe stated in that notice, any share in respect of which the notice was given may be forfeited by resolution of the Directors.

(b) The Company shall have a first and paramount lien on every share (not being a fully paid share) for all moneys (whether presently payable or not) called or payable at a fixed time in respect of such share. The Directors may, at any time, either generally or in any particular case, declare any share to be wholly or partly exempt from these provisions. The Company may sell, in such manner as the Directors think fit, any share on which the Company has a lien if any sum in respect of which the lien exists is presently payable and is not paid within 14 clear days of a notice of intention to sell the share in default of payment shall have been given to the holder of the share.

7.9 **Sale of shares of untraced members**

The Company may sell any share of a member who has not claimed dividends during a period of 12 years and who cannot be traced, as set out in the Articles.

7.10 **Transfer of shares**

(a) Any member may transfer all or any of his certificated shares by an instrument of transfer in writing in any usual or common form or in any other form acceptable to the Directors. 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.

(b) All transfers of shares which are in uncertificated form shall, subject to the CREST Regulations, be effected by means of a computer system (as defined in the CREST Regulations).

(c) The Directors may, in their absolute discretion, refuse to register any transfer of an uncertificated share where permitted by the CREST Regulations.

(d) The Directors may, in certain circumstances, refuse to register the transfer of a certificated share, unless the instrument of transfer is:

(i) in respect of one class of share only;

(ii) in favour of not more than four joint transferees;

(iii) left at the registered office of the Company or such other place, as the Directors may decide, for registration; and

(iv) accompanied by the certificate for the shares to be transferred and such other evidence (if any) as the Directors may reasonably require as proof of title.

(e) If the Directors refuse to register a transfer of a share, they shall send the transferee notice of the refusal giving reasons for the refusal as soon as practicable.

(f) No fee shall be charged for the registration of any instrument of transfer or other document relating to or affecting the title to a share.

7.11 **Disclosure of interests in shares**

(a) The Company may give a disclosure notice to any person whom it knows, or has reasonable cause to believe, is either:

(i) interested in the Company's shares; or

(ii) has been so interested at any time during the three years immediately preceding the date on which the disclosure notice is issued.

(b) The disclosure notice may require the person:

(i) to confirm that fact or (as the case may be) to state whether or not it is the case; and

(ii) if he holds, or has during that time held, any such interest, to give such further information as may be required.

(c) The notice may require the person to whom it is addressed, where either:

(i) his interest is a present interest and another interest in the shares subsists; or

(ii) another interest in the shares subsisted during that three-year period at a time when his interest subsisted,

to give, so far as lies within his knowledge, such particulars with respect to that other interest as may be required by the notice, including the identity of persons interested in the shares in question.

(d) The notice may require the person to whom it is addressed, where his interest is a past interest, to give (so far as lies within his knowledge) particulars of the identity of the person who held that interest immediately upon his ceasing to hold it.

(e) Failure to provide the information within the time specified in the notice means that, if the Directors so determine, the holder of the relevant shares shall not be entitled to attend or vote either personally or by proxy at a shareholders' meeting or to exercise any other right confirmed by membership in relation to shareholder meetings for so long as

the default continues (and, if those shares represent at least 0.25 per cent. of the issued shares of the class, the holder shall not, if the Directors so direct by notice to such holder, be entitled to receive any payment by way of dividend or to transfer any rights in the shares, provided that, in the case of shares in uncertificated form, the Directors may only exercise their discretion not to register a transfer if permitted to do so by the CREST Regulations).

7.12 **Disclosures pursuant to the Disclosure and Transparency Rules**

(a) The provisions of Chapter 5 of the Disclosure and Transparency Rules ("DTR5") are incorporated by reference into the Articles and the Company is be deemed to be an "issuer" (and not, for the avoidance of doubt, a "non-UK issuer"), as such term is defined in paragraph 5.1.1 of DTR5.

(b) If the Directors determine that a holder of shares has not complied with the provisions of DTR5, with respect to some or all of such shares held by that holder, the Directors shall have the right in the circumstances set out in the Articles to suspend the right of such shareholder to attend or vote in person or by proxy at any meeting of the Company, until said shareholder has cured the non-compliance with the provisions of DTR5; and/or

where the default shares represent 0.25 per cent. or more of the issued shares of the class:

(i) withhold any dividend or other amount payable with respect to such shares, such amount to be payable only after the notice of default ceases to have effect with respect to those shares; and/or

(ii) render ineffective any election to receive shares of the Company instead of cash in respect of any dividend or part thereof; and/or

(iii) prohibit the transfer of any shares in the Company held by the defaulting shareholder except in the circumstances set out in the Articles.

(c) The Company shall put in place policies and procedures under which persons discharging managerial responsibilities (as that term is defined in the Disclosure and Transparency Rules) shall be required to comply with Chapter 3 of the Disclosure and Transparency Rules.

7.13 **General meetings**

(a) The Directors shall convene, and the Company shall hold, annual general meetings, in accordance with the Jersey Companies Law. The Company must hold an annual general meeting within six months of the end of each financial year of the Company and not more than 15 months shall lapse between subsequent annual general meetings.

(b) The Directors may call further general meetings whenever they think fit. On the requisition of members pursuant to the provisions of the Jersey Companies Law or the Articles, the Directors shall also promptly convene a general meeting.

(c) An annual general meeting must be called by at least 21 clear days' notice. Any other general meeting must be called by at least 14 days' clear notice. Subject to the provisions of the Articles, the notice must be sent to all the members, to each of the Directors and to the auditors.

(d) Any procedural resolution put to the vote of the meeting shall be decided on a show of hands, unless (before or on the declaration of such a vote) a poll is demanded by:

(i) the chairman of the meeting;

(ii) at least five members present in person or by proxy and entitled to vote on the resolution;

(iii) a member or members present in person or by proxy and representing not less than one-tenth of the total voting rights of all the members having the right to vote on the resolution; or

(iv) a member or members present in person or by proxy and holding shares in the Company conferring a right to vote at the meeting, being shares on which an aggregate sum has been paid up equal to not less than 10 per cent. of the total sum paid up on all the shares conferring that right.

Any other resolution put to the vote of the meeting shall be decided on a poll.

(e) An ordinary resolution shall be passed by a simple majority of votes in favour and a special resolution shall be passed by a three-quarters majority of votes in favour.

(f) A poll at a general meeting shall be taken in such manner as the chairman of the meeting may decide.

(g) A Director and any proxy shall, notwithstanding that he is not a member, be entitled to attend and speak at any general meeting and at any separate meeting of the holders of any class of shares in the capital of the Company.

(h) The shareholders who generally represent at least 5 per cent. of the total voting rights of all members having a right to vote at a general meeting are permitted to requisition a general meeting and the shareholders who generally represent at least 2.5 per cent. of the total voting rights of all members having a right to vote at an annual general meeting are permitted to require the Company to circulate members' resolutions to be moved at the next annual general meeting and require the Company to circulate statements relating to resolutions to be dealt with at a general meeting.

(i) Shareholders generally representing at least 5 per cent. of the total voting rights or not fewer than 100 members having a right to vote on a matter to which a poll relates may require the Board to obtain an independent report on any poll taken, or to be taken, at a general meeting of the Company.

7.14 **Voting rights**

Subject to the Articles and any special rights or restrictions as to voting attached to any shares, on a show of hands every member (or his proxy) present shall have one vote and on a poll every member (or his proxy) present shall have one vote for every share of which he is the holder. A member may appoint more than one proxy to vote on that member's behalf. A member that is a body corporate may appoint a corporate representative to represent it at a general meeting. Jersey law does not expressly permit the appointment of more than one corporate representative by a member in respect of the same shareholding.

7.15 **Directors**

Appointment of Directors

(a) Unless otherwise determined by ordinary resolution, the number of Directors shall not be subject to any maximum but shall not be less than two. The Directors may be appointed by ordinary resolution or by the Directors. Subject to the provisions on rotation of Directors, any Director appointed by the Board holds office only until the next following annual general meeting and, if not reappointed at such annual general meeting, shall vacate office at its conclusion.

(b) The Directors may appoint any one or more of their body to be executive Directors and confer on them any powers exercisable by them as the Directors think fit.

Chairman of the Board

The Board of the Company may appoint a chairman of the Board.

Age of Directors

No age limit shall apply to Directors of the Company.

Qualification of Directors

A Director shall not be required to hold any shares in the capital of the Company by way of qualification.

Retirement of Directors by rotation

Each Director shall retire at the next annual general meeting if appointed by the Board since the previous annual general meeting. Each Director shall retire at the annual general meeting held in the third calendar year following the annual general meeting at which he was last elected or re-elected. Each such retiring Director of the Company shall be eligible for re-election by shareholders at the annual general meeting at which he has retired unless the Board determines otherwise.

Removal of Directors

The Company may, by ordinary resolution, remove any Director before his period of office has expired. A Director may also be removed from office by the service on him of a notice to that effect signed by or on behalf of all the other Directors.

Remuneration of Directors

(a) The ordinary remuneration of the Directors who do not hold executive office for their services shall be limited to, in aggregate, £3 million per annum, or such higher amount as may be determined by ordinary resolution.

(b) Any Director who holds any executive office with the Company or any subsidiary undertaking of the Company or who performs any special or extra services for, or at the request of, the Company 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, each Director may be paid all reasonable expenses incurred by him in the discharge of his duties, including his expenses of travelling to and from meetings of the Directors or of any committee of the Directors or general meetings of the Company.

(d) The Board may pay, provide or procure the grant of pensions or other retirement or superannuation benefits and death, disability or other benefits, allowances or gratuities for any past or present Director or the relatives or dependants of any such person. For this purpose, the Board may establish and maintain, participate in or contribute to any non-contributory or contributory pension or superannuation fund, scheme or arrangement and pay any insurance premiums.

Payment for loss of office

(a) Except in certain circumstances permitted by the Articles, the Company shall not make a payment for loss of office to a Director of the Company unless the payment has been approved by an ordinary resolution of the Company.

(b) Before such a resolution may be passed, a memorandum setting out particulars of the proposed payment (including its amount) is made available for inspection by shareholders:

  (i) at the registered office of the Company for not less than 15 clear days ending with the date that the proposed resolution is put to the members; and

  (ii) at the meeting at which the proposed resolution is put to the members.

Permitted interests of Directors

(a) Subject to compliance with the Articles and Jersey Companies Law, a Director may hold office, be employed by or be interested in any Glencore company or be party to or be interested in any contract, transaction or arrangement with any Glencore company or in which the Company is otherwise interested.

(b) A Director must have certain interests authorised by the other Directors as if the provisions of section 175 of the UK Companies Act 2006 applied to the Company.

(c) A Director may not vote in respect of authorisation of his interest and will not count towards the quorum of the meeting of Directors at which the interest is considered.

Restrictions on voting

A Director shall not be entitled to vote on any resolution of the Board concerning a matter in which he or any person connected with him is interested, but this prohibition shall not apply to amongst other things:

(a) any transaction or arrangement in which he or any connected person is interested by virtue of an interest in shares, debentures or other securities of the Company or otherwise in or through the Company;

(b) 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;

(c) 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 in part and whether alone or jointly with others) under a guarantee or indemnity or by the giving of security;

(d) any issue 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;

(e) any transaction or arrangement concerning any other company in which he does not hold voting rights representing 1 per cent. or more of any class of the equity share capital of that company;

(f) the adoption, modification or operation of a pension fund, retirement, death or disability benefits scheme or an employee share scheme under which he may benefit and which does not award him any privilege or benefit not generally awarded to the employees or former employees to whom such arrangement relates; or

(g) the purchase or maintenance of insurance for any Director of the Company against any liability.

Board meetings

(a) Directors may convene meetings as they deem fit. The quorum necessary for transactions of the business of a Board meeting is two Directors. The Chairman of the Board meeting has the casting vote.

(b) No fewer than half of the Board meetings in any financial year shall be held in Switzerland.

(c) The Directors may adopt decisions by written resolution and may appoint committees as they deem fit and appropriate.

Borrowing powers

The Board may exercise all the powers of the Company to borrow money and to mortgage or charge its undertaking, property and uncalled capital and to issue debentures and other securities. There is no obligation on the Directors to restrict the borrowings of the Company.

7.16 **Nomination rights**

(a) A member who holds shares on behalf of another person may nominate that person to enjoy information rights.

(b) For these purposes, "information rights" means:

(i) the right to receive a copy of all communications that the Company sends to its members generally or to any class of its members that includes the person making the nomination;

(ii) the right to receive one copy of the Company's last annual accounts, the last Directors' remuneration report, the last Directors' report and the auditor's report on those accounts (including the report on the Directors' remuneration report and on the Directors' report);

(iii) the right to receive one copy of the summary financial statements of the Company; and

(iv) the right to receive one copy of any document or information, in hard copy form, which has been provided to the members, by the Company, by means of electronic communication.

(c) If the person to be nominated in accordance with paragraph (a) above wishes to receive hard copy communications, he must, prior to the nomination being made, request the person making the nomination to notify the Company of that fact and provide an address to which such copies may be sent. If, having received such a request, the person making the nomination notifies the Company that the nominated person wishes to receive hard copy communications and provides the Company with that address, the right of the nominated person is to receive hard copy communications accordingly.

(d) If the nominated person does not make such a notification or provide an address to the Company for delivery of the information, he is taken to have agreed that documents or information may be sent or supplied to him by the Company by means of a website. Such agreement may be revoked by the nominated person making the notification or sending details of his address to the Company.

(e) The nomination may be terminated at the request of the member or of the nominated person and will cease to have effect in certain circumstances as set out in the Articles.

(f) These rights are in addition to the rights of the member himself.

(g) Any provision of the Jersey Companies Law and any provision of the Articles having effect in relation to communications with members has a corresponding effect (subject to any necessary adaptations) in relation to communications with the nominated person.

7.17 **Electronic communications**

(a) The Company may send or supply a document or information by way of electronic communication to any shareholder who has agreed (generally or specifically) that notices, documents or information can be sent or supplied to them in that form and has not revoked such agreement. The Company may do so by sending or supplying the document or communication to such address as may from time to time be specified for that purpose by the intended recipient or by making it available on a website and notifying the shareholder that it has been made available. A member shall be deemed to have agreed that the Company may send or supply a document or information by means of a website if the conditions set out in the Articles have been satisfied.

(b) A shareholder whose registered address is not within Jersey, the United Kingdom or Hong Kong shall not be entitled to receive any document from the Company in hard copy form unless he gives to the Company a postal address within Jersey, the United Kingdom or Hong Kong at which notices may be given to him.

(c) Where a document or information is sent or supplied by means of a website, it shall be deemed to have been received:

(i) when the material was first made available on the website; or

(ii) if later, when the recipient received or was deemed to have received notice of the fact that the material was available on the website.

7.18 **Dividends and other distributions**

(a) Subject to the provisions of the Jersey Companies Law, the Company may, by ordinary resolution, declare dividends but no such dividend shall exceed the amount recommended by the Board.

(b) Subject to the provisions of the Jersey Companies Law, the Board may pay fixed and interim dividends if, and insofar as, in the opinion of the Board, the financial position of the Company justifies such payments. If the Board acts in good faith, the Directors shall not incur any liability to the holders of any shares for any loss they may suffer by the lawful payment, on any other class of shares having non-preferred or deferred rights, of any such fixed or interim dividend.

(c) The Company may, upon the recommendation of the Board, by ordinary resolution, direct payment of a dividend in whole or in part *in specie* and the Board shall give effect to such resolution.

(d) No dividend or other moneys payable in respect of a share shall bear interest against the Company.

(e) The Board may retain any dividend or moneys payable in respect of a share on which the Company has a lien.

(f) Any dividend unclaimed after a period of 12 years from the date on which such dividend was declared or became due for payment shall be forfeited and revert to the Company.

(g) 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.

7.19 **Summary financial statements**

The Company may send summary financial statements to shareholders instead of copies of its full accounts and reports, in accordance with the Articles.

7.20 **Indemnity and insurance of Directors and officers**

Subject to the provisions of, and to the extent permitted by, the Jersey Companies Law, the Company shall:

(a) indemnify any Director of the Company (or of a subsidiary undertaking) against any liability;

(b) indemnify a director of a company that is a trustee of an occupational pension scheme for employees (or former employees) of the Company (or of any subsidiary of the Company) against liability incurred in connection with that company's activities as trustee of the scheme;

Subject to the provisions of, and to the extent permitted by Jersey Companies Law, the Company may:

(i) purchase and maintain insurance against any liability for any director referred to in paragraphs (a) or (b) above; and

(ii) provide any director referred to in paragraph (a) or (b) above with funds (whether by loan or otherwise) to meet expenditure incurred or to be incurred by him in defending any criminal, regulatory or civil proceedings or in connection with an application for relief (or to enable any such director to avoid incurring such expenditure).

7.21 **Winding-up**

Subject to any particular rights or limitations for the time being attached to any shares, if the Company is wound up, the assets available for distribution among the members shall be distributed to the members *pro rata* to the number of shares held by each member at the time of the commencement of the winding-up. If any share is not fully paid up, that share shall only carry the right to receive a distribution calculated on the basis of the proportion that the amount paid up on that share bears to the issue price of that share.

If the Company is wound up, the Company may, with the sanction of a special resolution of the Company and any other sanction required by the Jersey Companies Law and the liquidator or, where there is no liquidator, the Directors 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 and vest the whole or any part of the assets in trustees upon such trusts for the benefit of members as the liquidator or the Directors shall think fit. No shareholder shall be compelled to accept any assets in respect of which there is any liability.

8 Takeover regulation

The City Code will govern takeover offers for the Company and other matters to which the City Code applies. The Jersey Takeover Law provides a statutory framework for the application of the City Code to takeover offers for Jersey incorporated companies and other matters to which the City Code applies, and appoints the Panel on Takeovers and Mergers (the "Panel") as the body to oversee takeover offers for Jersey incorporated companies.

8.1 **Mandatory bids**

Under the City Code, if an acquisition of Ordinary Shares were to increase the aggregate holding of an acquirer and its concert parties to Ordinary Shares carrying 30 per cent. or more of the voting rights in Glencore, the acquirer and, depending upon the circumstance, its concert parties would be required (except with the consent of the Panel) to make a cash offer for the outstanding Ordinary Shares at a price not less than the highest price paid for the Ordinary Shares by the acquirer or its concert parties during the previous 12 months. A similar obligation to make such a mandatory offer would also arise on the acquisition of Ordinary Shares by a person holding (together with its concert parties) Ordinary Shares carrying between 30 per cent. and 50 per cent. of the voting rights in Glencore, if the effect of such acquisition were to increase that person's percentage of the voting rights.

8.2 **Squeeze-out**

The Jersey Companies Law provides that, where a person (the "Offeror") makes a takeover offer to acquire all of the shares (or all of the shares in any class) in a Jersey company (other than any shares already held by the Offeror at the date of the offer), if the Offeror has, by virtue of acceptance of the offer, acquired or contracted to acquire not less than 90 per cent. in nominal value of the shares (or class of shares) to which the offer relates, the Offeror may (subject to the requirements of the Jersey Companies Law), by notice to the holders of the shares (or class of shares) to which the offer relates which the Offeror has not already acquired or contracted to acquire, compulsorily acquire those shares. A holder of any shares who receives a notice of compulsory acquisition may (within six weeks from the date on which such notice was given) apply to the Jersey court for an order that the Offeror not be entitled and bound to purchase the holder's shares or that the Offeror purchase the holder's shares on terms different to those of the offer.

8.3 **Sell-out**

Where, before the end of the period within which the takeover offer can be accepted, the Offeror has by virtue of acceptance of the offer acquired or contracted to acquire not less than 90 per cent. in nominal value of all of the shares (or all of the shares of a particular class) of the Jersey company, the holder of any shares (or class of shares) to which the offer relates who has not accepted the offer may, by written notice to the Offeror, require the Offeror to acquire the holder's shares. The Offeror shall (subject to the requirements of the Jersey Companies Law) be entitled and bound to acquire the holder's shares on the terms of the offer or on such other terms as may be agreed. Where a holder gives the Offeror a notice of compulsory acquisition, each of the Offeror and the holder of the shares is entitled to apply to the Jersey court for an order that the terms on which the Offeror is entitled and bound to acquire the holder's shares shall be such as the court thinks fit.

9 Directors of the Company

9.1 The Directors and their functions within the Company and Glencore and brief biographies are set out in Section II: "Directors and Corporate Governance".

9.2 The companies and partnerships of which the Directors are, or have been, within the past five years, members of the administrative, management or supervisory bodies or partners (excluding the Company and its subsidiaries and also excluding the subsidiaries of the companies listed below) are as follows:

Name	Current directorships/partnerships	Former directorships/partnerships
Independent Chairman		
Simon Murray	Asia Resources Fund Limited ARF Investment Management Limited Beryl Overseas Limited Beyond Asia Holdings Ltd Bright Zone Enterprises Ltd Capital Way Holdings Limited Cheung Kong Holdings Ltd. Compagnie Financière Richemont SA Diamond Creek International Limited Energy Success Investments Limited Essar Energy plc GEMS AAA Limited GEMS Oriental And General Fund II Limited GEMS Oriental And General Fund Limited GEMS III Limited General Enterprise Management Services Limited General Enterprise Management Services (International) Limited Grace Semiconductor Manufacturing Corporation Greenheart Group Limited Guggenheim Investment Advisors (Europe) Limited IRC Limited K.K. Jermyn Capital Million Star Corporation Morningstar Capital & Investment Ltd Onyx Overseas Limited Orient Overseas (International) Ltd. Poly Stone Holdings Limited San Marino Telecom Silver Heritage Limited Simclan Ltd. Simon Film Productions Limited Simon Murray & Associates Limited Simon Murray & Co. (Cayman) Limited Simon Murray & Co. China Fund Limited Simon Murray & Co. (Japan) Limited Simon Murray & Co. Limited Simon Murray & Company (Hong Kong) Limited Simon Murray (San Marino) Holdings Ltd Sino Forest Corporation SMC China Fund SPC SMC (China) Capital Limited SMC RMB General Partner I Limited Tektite Overseas Limited Ultragrand Limited Wing Tai Properties Limited Yarrum Limited	Arnhold Holdings Ltd Bemobile Limited Clariden Limited Compass Technology Holdings Ltd. Hermes International Hutchison Whampoa Ltd. Pacific Century Regional Developments Ltd. Sunday Communications Ltd. Tommy Hilfiger Corporation Usinor SA Vivendi Universal Vodafone Group Plc Yozan Inc.
Executive Directors		
Ivan Glasenberg	Xstrata plc United Company RUSAL Plc	Century Aluminum
Steven Kalmin	None[1]	None

Name	Current directorships/partnerships	Former directorships/partnerships
Non-Executive Directors		
Peter Coates	Santos Ltd. Amalgamated Holdings Limited	Cumnock Coal Limited Minara Resources Limited Xstrata Australia Pty Limited Downer EDI Limited
Leonhard Fischer	RHJ International S.A. Kleinwort Benson Group Julius Baer Gruppe AG AXA Konzern AG Arecon AG	3W Power Solutions S.A Winterthur Group Credit Suisse Group
Anthony Hayward	TNK-BP MIT Energy Advisory Board AEA Capital British Olympic Advisory Board	BP plc Corus Group Tata Steel
William Macaulay	BGWM 2 GP, LLC First Reserve Corporation, LLC First Reserve Energy Infrastructure Advisors, LLC First Reserve Energy Infrastructure GP Limited First Reserve International Limited First Reserve XII Advisors, LLC FR Horizon GP Limited FR X Offshore GP Limited FR XI Offshore GP Limited FR XII PBF Holdings LLC FRC Founders Corporation City University of New York Dresser-Rand Group, inc. First Reserve GP X, inc. First Reserve GP XI, inc. First Reserve GP XII Limited First Reserve Management Limited First Reserve Partners Limited FR XII Alternative GP Ltd. Odyssey Investment Partners The Rogosin Institute Weatherford International, Ltd. First Reserve Energy Infrastructure GP Limited	2B2J, L.P. Alpha Natural Resources, inc. AMCI Capital GP Limited AMCI Holdings Australia PTY LTD BGWM L.P. Cairngorm Oil & Gas LLP DEG Acquisitions, LLC Dresser, Ltd. DSS Holdings GP Limited First Reserve GP IX, inc. Foundation Coal Holdings, inc. FR IX Offshore GP Limited FR PRJV GP Limited Narrabri Coal PTY Ltd Petrel Re Holdings Limited Sirocco Holdings Limited Sirocco Reinsurance Limited (Bermuda) Turbo Cayman Limited Whitehaven Coal Mining Limited Dresser, inc.
Li Ning	Henderson Land Development Company Limited Hong Kong (Ferry) Holdings Company Limited	Henderson Investment Limited

Note:

(1) Steven Kalmin will be standing for election to the Century Aluminum board, at the Century Aluminum 2011 annual general meeting expected to be held in June 2011. Century Aluminum has agreed to publicly support and recommend the election of Mr Kalmin at such annual general meeting.

Save as set out above, none of the Directors or the Company Secretary have any business interests, or perform any activities, outside Glencore which are significant with respect to Glencore.

9.3 There are no family relationships between any Directors.

9.4 As at the date of this Prospectus, none of the Directors has, at any time within the last five years:

(a) had any prior convictions in relation to fraudulent offences;

(b) been declared bankrupt or been the subject of any individual voluntary arrangement;

(c) been associated with any bankruptcies, receiverships or liquidations when acting in the capacity of a member of the administrative, management or supervisory body or of a senior manager;

(d) been subject to any official public incrimination and/or sanction by any statutory or regulatory authority (including designated professional bodies);

(e) been disqualified by a court from acting in the management or conduct of the affairs of any issuer;

(f) been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of any issuer;

(g) been a partner or senior manager in a partnership which, while he was a partner or within 12 months of his ceasing to be a partner, was put into compulsory liquidation or administration or which entered into any partnership voluntary arrangement;

(h) owned any assets which have been subject to a receivership or been a partner in a partnership subject to a receivership where he was a partner at a time or within the 12 months preceding such event; or

(i) been an executive director or senior manager of a company which has been placed in receivership, compulsory liquidation, creditors' voluntary liquidation or administration or which entered into any company voluntary arrangement or any composition or arrangement with its creditors generally or any class of creditors, at any time during which he was an executive director or senior management of that company or within 12 months of his ceasing to be an executive director or senior manager.

9.5 The aggregate remuneration paid (including any contingent or deferred compensation) and benefits in kind granted to the Directors by Glencore and its subsidiaries during the financial year ended 31 December 2010 for services in all capacities was U.S.$471.8 million. This sum includes amounts of remuneration allocated to Directors in respect of their profit participation certificates for the financial year ended 31 December 2010. As described in paragraph 3 of Part X: "Additional Information", following completion of the Restructuring, all profit participation certificates will have been exchanged for Ordinary Shares and will not be allocated amounts in respect of profit for financial years commencing on or after 1 January 2011.

9.6 The total amount set aside or accrued by Glencore or its subsidiaries to provide pension, retirement or similar benefits for the Directors of Glencore for the financial year ended 31 December 2010 was U.S.$91,021.

10 Directors' service contracts, terms of appointment and other details

10.1 Each of the Executive Directors has a service contract with Glencore International AG which will be effective from Admission.

10.2 The terms of the Executive Directors' service contracts are summarised below:

Name	Position	Date of contract	Notice period[1]	Salary (£)
Executive Directors[2][3]				
Ivan Glasenberg	Chief Executive Officer	28 April 2011	12 months	925,000
Steven Kalmin	Chief Financial Officer	28 April 2011	12 months	700,000

Notes:

(1) Other than entitlement to notice, a payment in lieu of notice, Executive Directors will not be entitled to compensation on termination of their contract.

(2) The Executive Directors are entitled to participate in any benefit (including pension) arrangements which Glencore has in place from time to time for categories of employees of which they are members.

(3) The Executive Directors are entitled, at the Company's discretion, to participate in the Company's bonus arrangements from time to time. The current maximum annual bonus opportunity for each of them is 200 per cent. of annual salary mentioned above.

10.3 The Non-Executive Directors do not have service contracts although they have letters of appointment reflecting their responsibilities and commitments. Under the Articles, all Directors must retire by rotation and seek re-election by shareholders every three years, however, it is intended that the Directors shall each retire and submit themselves for re-election by shareholders annually.

10.4 The terms of the Non-Executive Directors' appointment letters are summarised below:

Name	Position	Date of joining the Board	Notice period (months)[1][2]	Total fees[3] (£)
Non-Executive Directors				
Simon Murray	Non-Executive Chairman	28 April 2011	3	675,000
Peter Coates	Non-Executive Director	14 April 2011	3	128,800
Leonhard Fischer	Non-Executive Director	14 April 2011	3	128,800
Anthony Hayward	Non-Executive Director	14 April 2011	3	158,800
William Macaulay	Non-Executive Director	14 April 2011	3	126,300
Li Ning	Non-Executive Director	14 April 2011	3	90,800

Notes:

(1) Under the Articles, all Directors must retire by rotation and seek re-election by shareholders every three years, however, it is intended that the Directors shall each retire and submit themselves for re-election by shareholders annually.

(2) Other than the entitlement to notice, Non-Executive Directors will not be entitled to compensation on termination of their appointment.

(3) Total fees vary due to different roles and committees the various Non-Executive Directors sit on.

10.5 During the three financial years ended 31 December 2010, no emolument was paid by Glencore to any of the Directors as an inducement to join or upon joining Glencore or as compensation for loss of office. None of the Directors waived any emoluments during the same period.

11 Directors' interests

11.1 The interests in the share capital of the Company of the Directors (all of which, unless otherwise stated, are beneficial or are interests of a person connected with a Director), assuming that the Offer Price is at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and that the Kazzinc Consideration Shares have not been issued immediately prior to and following Admission are as follows:

	Immediately prior to Admission		Immediately following Admission	
Name	No. of Ordinary Shares	Percentage of issued share capital	No. of Ordinary Shares	Percentage of issued share capital
Directors				
Ivan Glasenberg	1,086,881,843	18.1	1,086,881,843	15.8
Steven Kalmin	70,676,710	1.2	70,676,710	1.0

11.2 There are no outstanding loans granted by any member of the Glencore Group to any Director, nor has any guarantee been provided by any member of the Glencore Group for their benefit.

11.3 There are:

(a) no potential conflicts of interest between any duties to the Company of the Directors and their private interests and/or other duties; and

(b) no arrangements or understandings with the members, suppliers or others pursuant to which any Director was selected.

11.4 Save as set out in Section VIII: "Details of the Global Offer", there are no restrictions agreed by any Director on the disposal within a certain time of their holdings in the Company's securities.

11.5 No awards have been granted to date to the Directors pursuant to the Glencore employee share plans. See paragraph 14 of this Section X for further details.

12 Interests of significant Shareholders

12.1 Other than the interests of the Directors disclosed in paragraph 11 above and other than any interest that may arise under the Underwriting Agreement (assuming that the Offer Price is at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and that

the Kazzinc Consideration Shares have not been issued), as far as the Company is aware, the following persons immediately prior to Admission are interested and will following Admission be interested, in three per cent. or more of the Company's issued ordinary share capital:

	Immediately prior to Admission		Immediately following Admission	
Name	No. of Ordinary Shares	Percentage of issued share capital	No. of Ordinary Shares	Percentage of issued share capital
Daniel Francisco Maté Badenes	416,354,564	6.9	416,354,564	6.0
Aristotelis Mistakidis	411,766,382	6.9	411,766,382	6.0
Tor Peterson[(1)]	366,255,354	6.1	366,255,354	5.3
Alex Beard	320,506,122	5.3	320,506,122	4.6
Selling Shareholder	238,782,586	4.0	nil	nil

Note:

(1) Within the meaning of Chapter 5 of the UK Disclosure and Transparency Rules, Tor Peterson is an indirect holder of 105,548,031 Ordinary Shares held by Cititrust (Switzerland) Limited pursuant to a fiduciary arrangement established for his benefit prior to the Restructuring. This indirect holding of Ordinary Shares is included in the above table.

12.2 The Company's significant Shareholders do not have and will not have different voting rights attached to the Ordinary Shares they hold to those held by the other Shareholders.

12.3 The Company is not aware of any person who immediately following Admission, directly or indirectly, jointly or severally, will own or could exercise control over the Company.

13 Pensions

Glencore and certain subsidiaries sponsor various pension schemes in accordance with local regulations and practices and among these schemes are defined contribution plans as well as defined benefit plans. Eligibility for participation in the various plans is based on either completion of a specified period of continuous service or date of hire. The plans provide for certain employee and employer contributions, ranging from five to 16 per cent. of annual salaries, depending on the employee's years of service. However, the majority of employees do not participate in a pension scheme offered by Glencore. Approximately 3 per cent. of Glencore's employees participate in its defined benefit pensions schemes and these are mainly operated in the U.S., the UK and Switzerland, which account for more than 90 per cent. of Glencore's aggregate pension liabilities.

14 Glencore employee share plans

14.1 Overview

Glencore believes that its employee ownership structure has been an important element of its successful growth since its inception, with its consistent profitability, the long-term tenure of its management team and prudent risk management policies having been a direct result of this ownership structure. As explained under "Description of ownership structure" in Section II: "Directors and Corporate Governance", to continue this strong culture of employee ownership within Glencore, the Company has adopted the following employee share plans:

(a) the Glencore Performance Share Plan (the "PSP"); and

(b) the Glencore Deferred Bonus Plan (the "DBP").

No awards have been granted under these plans to date. It is not proposed to make any awards in calendar year 2011 other than awards under the PSP to new hires and any top-up awards to existing employees necessary to reflect their level of seniority and/or performance in line with their peers (where such top-up awards, if any, are not expected to be material). These plans are in addition to the annual short-term bonus arrangements in place for the Glencore employees.

The principal features of the PSP and the DBP are summarised below.

Also summarised below are the principal features of certain long-service and phantom equity awards made to employees of the Group. It is not proposed to grant further awards under either of these arrangements.

The Company has also adopted an employee benefit trust which may be used to provide Ordinary Shares to satisfy awards under the PSP and/or the DBP.

14.2 **Glencore Performance Share Plan**

(a) Summary

Under the PSP, a participant is granted a right (a "PSP Award") to receive free Ordinary Shares after a specified period, subject to continued employment, forfeiture for malus events and, for Executive Directors, satisfaction of the agreed performance condition(s).

PSP Awards will be granted to employees who have demonstrated excellent performance over a sustained period. It is proposed that PSP Awards granted to Executive Directors will vest after three years subject to the satisfaction of the agreed performance condition(s), continued employment and forfeiture for malus events. PSP Awards granted to other employees will vest in annual tranches over five years, subject to continued employment and forfeiture for malus events.

(b) Eligibility to participate

Executive Directors and other employees of the Glencore Group will be eligible to participate in the PSP, subject to selection by the remuneration committee (which for the purposes of this paragraph 14 includes, as appropriate, a sub-committee so formed by the remuneration committee or, by delegation, the Chief Executive Officer).

(c) Grant of PSP Awards

(i) Number of Ordinary Shares: The number of Ordinary Shares comprised in a PSP Award will be determined by the remuneration committee. In respect of an Executive Director, the value of Ordinary Shares comprised in a PSP Award(s) granted in any financial year will not exceed 500 per cent. of salary.

(ii) Structure of PSP Awards: PSP Awards will normally be structured as conditional awards of Ordinary Shares but, at the remuneration committee's discretion, may alternatively be structured as options, forfeitable shares or phantom awards.

(iii) Performance condition: PSP Awards granted to Executive Directors will be subject to an objective performance condition(s) in line with the Company's strategy. The performance condition(s) will be determined by the remuneration committee at grant.

(d) Before vesting

(i) Rights: Participants will not be entitled to vote or receive dividends in respect of PSP Awards which are structured as conditional awards, options or phantom awards. However, the remuneration committee may decide to pay participants a dividend equivalent on vesting.

(ii) Leaving employment: If a participant leaves the Glencore Group before vesting, his PSP Award will lapse unless he is a good leaver. A good leaver reason includes disability, ill-health, redundancy, agreed retirement or sale of his employing company/business or any other reason that the remuneration committee may agree. For good leavers, a PSP Award will generally vest on the normal vesting date(s), subject to any agreed performance condition(s) being met and forfeiture for malus events. The number of Ordinary Shares may be time pro-rated at the remuneration committee's discretion.

(iii) Malus events: In the event that a participant behaves in a way which violates the legitimate interests of the Glencore Group (for example, by breaching confidentiality obligations or otherwise acting in a manner which falls outside the normal course of Glencore's business) and such behaviour results in a material loss

or other material detriment to the Glencore Group, the remuneration committee may reduce the PSP Award as it considers appropriate.

(iv) Corporate events before vesting: On a takeover, merger or other corporate reorganisation, participants may be required or permitted to exchange their PSP Awards for equivalent awards over shares in the acquiring company. Alternatively, the remuneration committee may decide that PSP Awards will vest immediately, subject to the satisfaction of any agreed performance condition(s). The number of Ordinary Shares may be time pro-rated at the remuneration committee's discretion.

(v) Rights issues and other variations of share capital: In the event of a rights issue, demerger or other variation in share capital, the number of Ordinary Shares subject to a PSP Award may be adjusted.

(e) Vesting

PSP Awards will vest after the period specified by the remuneration committee. It is currently intended that PSP Awards held by Executive Directors will normally vest on the third anniversary of grant subject to continued employment, satisfaction of any agreed performance condition(s) and forfeiture for malus events. For other participants, it is currently intended that PSP Awards will vest over five years in five equal tranches subject to continued employment and forfeiture for malus events.

14.3 **Glencore Deferred Bonus Plan**

(a) Summary

Under the DBP, all or part of a participant's bonus is deferred as an award of Ordinary Shares (a "Bonus Award") which vests at the end of a specified period subject to continued employment and forfeiture for malus events.

It is intended that the first grant of Bonus Awards under the DBP will be made in 2012 to Executive Directors in respect of bonuses earned in 2011 under Glencore's annual bonus arrangements. These Bonus Awards will vest over three years.

(b) Eligibility to participate

Executive Directors and other employees of the Glencore Group will be eligible to participate in the DBP, subject to selection by the remuneration committee. It is currently intended that Bonus Awards will only be granted to Executive Directors.

(c) Grant of Bonus Awards

(i) Number of Ordinary Shares: The number of Ordinary Shares comprised in a Bonus Award will be determined by reference to the amount of the participant's bonus which is to be deferred and the market value of an Ordinary Share at the time of grant.

(ii) Structure of Bonus Awards: Bonus Awards will normally be structured as conditional awards of Ordinary Shares but, at the remuneration committee's discretion, may alternatively be structured as nil cost options, forfeitable shares or phantom awards.

(d) Before vesting

(i) Rights: Participants will not be entitled to vote or to receive dividends in respect of Bonus Awards which are structured as conditional awards, nil cost options or phantom awards. However, the remuneration committee may decide to pay participants a dividend equivalent on vesting.

(ii) Leaving employment: If a participant leaves the Glencore Group before vesting, his Bonus Award will lapse unless he is a good leaver. A good leaver reason includes disability, ill-health, redundancy, agreed retirement or sale of his employing company/business or any other reason agreed by the remuneration committee. A Bonus Award held by a good leaver will normally vest in full on the normal vesting

date, subject to any forfeiture for malus events. The number of Ordinary Shares may be time pro-rated at the remuneration committee's discretion.

(iii) Malus events: If, prior to vesting, a participant behaves in a way which violates the legitimate interests of the Glencore Group (for example, by breaching confidentiality obligations or otherwise acting in a manner which falls outside the normal course of Glencore's business) and such behaviour results in a material loss or other material detriment to the Glencore Group, the remuneration committee may reduce the Bonus Award as it considers appropriate.

(iv) Corporate events before vesting: On a takeover, merger or other corporate reorganisation, participants may be required or permitted to exchange their Bonus Awards for equivalent awards over shares in the acquiring company. Alternatively, the remuneration committee may determine that Bonus Awards will vest immediately and in full.

(v) Rights issues and other variations of share capital: In the event of a rights issue, demerger or other variation in share capital, the number of Ordinary Shares subject to a Bonus Award may be adjusted.

(e) Vesting

Bonus Awards will vest over or at the end of the period specified by the remuneration committee. It is currently intended that vesting will be over three years.

14.4 **Common terms for both the Glencore Performance Share Plan and the Glencore Deferred Bonus Plan**

(a) Authority to operate

The PSP and DBP will be operated by the Company's remuneration committee or, as appropriate, its duly authorised committee or, by delegation, the Chief Executive Officer.

(b) Timing of award

Awards under the PSP and DBP will normally be granted within 42 days of the announcement of results. Subject to dealing restrictions, awards may be granted at other times, for example to a new hire, if there is a change in tax or share plans legislation or in exceptional circumstances, as determined by the remuneration committee. Awards cannot be granted after the tenth anniversary of Admission.

(c) Tax withholding

To the extent any participant is subject to a tax liability which must be withheld by the Company or any other company in the Glencore Group, the Company may make such arrangements as it considers necessary to meet such liability. This may include the sale or reduction in number of any Ordinary Shares subject to an award.

(d) Restrictions

Awards are not transferrable and are not pensionable.

(e) Funding of awards and dilution limits

PSP Awards and Bonus Awards may be satisfied using new issue shares, treasury shares or shares purchased in the market and will be recognized as a non-cash expense under Selling and administrative expenses in the Group's income statement. The number of shares which may be issued, or committed to be issued, in any 10 year period will not exceed (i) 10 per cent. of the Company's issued ordinary share capital, in respect of any employee share plans operated by the Company; and (ii) 5 per cent. of the Company's issued ordinary share capital, in respect of discretionary employee share plans adopted by the Company. As at the date of Admission, the Company will only have discretionary employee share plans in existence. Shares issued, or committed to be issued, before Admission will not be counted for either of these limits.

(f) Amendments

The plans may generally be amended by the remuneration committee. However, shareholder approval is required for amendments to the following provisions which are to the advantage of participants: eligibility, individual and dilution limits, the rights attaching to awards and Ordinary Shares, the adjustment of awards on a variation in share capital and the amendment power. However, shareholder approval is not required to make minor amendments to the rules to facilitate the administration of the relevant plan, which relate to any change in legislation, or which will obtain or maintain favourable tax, exchange control or regulatory treatments for any participating company or any participant.

The remuneration committee may, without obtaining shareholder approval, establish further plans (whether by way of schedules or otherwise) based on the PSP and/or DBP, but modified to take account of local tax, exchange control or securities law in non-UK territories. Any shares issued under such further plans will count towards the limits described in paragraph (e) above.

14.5 **2011 Long-Service Awards**

In April and May 2011, long-service awards were made to certain employees who were employed by the Group for two years or more at the date of grant and who are not Existing Shareholders. The maximum value of a long-service award which may be granted to any individual is U.S.$100,000. The long-service awards will vest on the first anniversary of UK Admission, subject to continued employment of the relevant individual. Long-service awards will vest early on the death of an award holder or on a change of control, subject to the remuneration committee's discretion to roll them over into equivalent awards that may be settled in shares in an acquiring company. Long-service awards may be satisfied in shares by the issue of new Ordinary Shares, by the transfer of Ordinary Shares held in treasury or by the transfer of Ordinary Shares purchased in the market (in each case with a market value equal to the value of the award at vesting calculated by reference to the average price of Ordinary Shares on the five trading days prior to vesting), or in cash. The maximum aggregate value of long-service awards is U.S.$35 million. There is no intention to grant any further long-service awards post-UK Admission.

14.6 **2011 Phantom Equity Awards**

In April and May 2011, phantom equity awards were made to certain employees in lieu of interests in the Group's existing equity ownership schemes. These phantom equity awards will vest on or before 31 December 2013, subject to the continued employment of the award holder. Phantom equity awards will vest early on the death of an award holder or on a change of control, subject to the remuneration committee's discretion to roll them over into equivalent awards that may be settled in shares in an acquiring company. Each award is over a number of notional Ordinary Shares, determined by reference to the Offer Price.

Phantom equity awards may be satisfied in shares by the issue of new Ordinary Shares, by the transfer of Ordinary Shares held in treasury or by the transfer of Ordinary Shares purchased in the market (in each case with a market value equal to the value of the award at vesting, including dividends paid between UK Admission and vesting), or in cash. The aggregate number of notional Ordinary Shares underlying the awards is 23,808,954, assuming that the Offer Price is set at the mid-point of the Offer Price Range.

The aggregate value of the awards at the Offer Price (assuming that the Offer Price is set at the mid-point of the Offer Price Range) is U.S.$210.3 million. If settled in cash, the amount payable under awards on vesting will be referenced to the average price of Ordinary Shares on the five trading days prior to vesting and to the value of dividends paid between UK Admission and vesting. There is no intention to grant any further phantom equity awards under this arrangement post-UK Admission.

15 Working capital

In the opinion of the Company, taking into account the net proceeds of the Global Offer receivable by the Company and Glencore's existing debt facilities, the working capital available to the Company and Glencore is sufficient for the Company and Glencore's present requirements, that is for the next 12 months following the date of this Prospectus.

16 Underwriting Agreement

16.1 Underwriting Agreement

The Company, Glencore International, the Directors, the Selling Shareholder and the Banks have entered into the Underwriting Agreement relating to the Global Offer. Pursuant to the Underwriting Agreement, subject to execution of the Pricing Agreement by 18 May 2011 (or such later time and date as the Company, the Selling Shareholder and the Joint Global Co-ordinators (on behalf of the Banks) may agree being no later than 15 July 2011 and UK Admission becoming effective no later than 8.00 a.m. on 24 May 2011 (or such later time and date as the Company and the Joint Global Co-ordinators (on behalf of the Banks) may agree, being no later than 31 July 2011) and the satisfaction of certain other conditions, including completion of the Restructuring in all material respects:

(a) the Company has agreed to allot and issue, at the Offer Price, the Offer Shares to be issued in connection with the Global Offer;

(b) the Selling Shareholder has agreed to sell, at the Offer Price, the Sale Shares to be sold by it in connection with the Global Offer;

(c) the International Managers have severally agreed to procure subscribers or purchasers, failing which to subscribe or purchase themselves, the International Offer Shares from the Company and the Selling Shareholder at the Offer Price and in such proportions as set out in the Pricing Agreement;

(d) the HK Managers have severally agreed to procure subscribers, failing which to subscribe themselves, for all of the Hong Kong Offer Shares at the Offer Price and in such proportions as set out in the Underwriting Agreement;

(e) in consideration for their services under the Underwriting Agreement, the Company has agreed to pay the Managers a commission of 1.575 per cent. of the product of the Offer Price and the number of New Offer Shares and, if applicable, the Over-Allotment Shares that are allotted pursuant to the Global Offer. In addition the Company has agreed to pay Citi and MSSL a praecipium fee of 0.175 per cent. of the product of the Offer Price and the number of New Offer Shares and, if applicable, the Over-Allotment Shares, if any, allotted pursuant to the Global Offer;

(f) in consideration for their services under the Underwriting Agreement, the Selling Shareholder has agreed to pay the Managers a commission of 1.575 per cent. of the product of the Offer Price and the number of Sale Shares. In addition the Selling Shareholder has agreed to pay Citi and MSSL a praecipium fee of 0.175 per cent. of the product of the Offer Price and the number Sale Shares, allotted pursuant to the Global Offer;

(g) in addition, the Company may, at its sole discretion, pay within 30 days of UK Admission, to any Manager in such proportions as the Company may in its absolute discretion decide a further commission of up to $82.5 million;

(h) the Company has agreed to pay the costs, charges, fees and expenses incurred in connection with the Global Offer, Admission and the arrangements contemplated by the Underwriting Agreement (together with any related value added tax);

(i) the Joint Global Co-ordinators (on behalf of the Banks) have the right to terminate the Underwriting Agreement, exercisable in certain circumstances prior to UK Admission in respect of the Global Offer. These circumstances, which are typical for agreements of this nature, include the occurrence of certain significant changes in the condition (financial or otherwise), business prospects or earnings of the Glencore Group (taken as a whole) and certain changes in financial, political or economic conditions;

(j) in addition to the commissions referred to above, the Company has agreed to pay (together with any VAT payable) the costs, charges, fees and expenses in connection with or incidental to the Global Offer, Admission and the arrangements contemplated by the Underwriting Agreement subject to an agreed cap in respect of the professional fees of the Banks;

(k) each of the Company, Glencore International, the Selling Shareholder and the Directors has given certain representations, warranties and undertakings to the Underwriters. The liabilities of the Company under the Underwriting Agreement are not limited as to time or amount. The

liabilities of the Directors and the Selling Shareholder under the Underwriting Agreement are limited as to time and amount;

(l) the Company has given an indemnity to the Banks, in a form that is typical for an agreement of this nature. Glencore International has given an indemnity to the Banks, in a form that is typical for an agreement of this nature, up until UK Admission. Glencore International's obligations under the indemnity will cease upon UK Admission;

(m) the parties to the Underwriting Agreement have given certain covenants to each other regarding compliance with laws and regulations affecting the making of the Global Offer in relevant jurisdictions;

(n) the Company has agreed to certain lock-up arrangements pursuant to the Underwriting Agreement, as more fully described in paragraph 17.1 of Section X: "Additional Information"; and

(o) the Underwriting Agreement also contains the terms of the Over-Allotment Option more fully described in paragraph 2 of Section VIII "Details of the Global Offer".

17 Lock-up arrangements

17.1 Company lock-up

Pursuant to the Underwriting Agreement, the Company has agreed that, subject to the exceptions described in paragraph 17.5 below, during the period commencing on Admission and ending on (and including) the date being the expiry of six months after UK Admission, it will not, without the prior written consent of the Joint Global Co-ordinators (on behalf of the Banks), directly or indirectly, offer, issue, lend, mortgage, charge, pledge, sell or contract to sell, issue options in respect of, or contract to purchase, purchase any option, grant any option, right or warrant to purchase or otherwise dispose of, or announce an offering or issue of, any Ordinary Shares (or any interest therein or in respect thereof) or any other securities exchangeable for or convertible into, or substantially similar to, Ordinary Shares or enter into any transaction with the same economic effect as, or agree to do, any of the foregoing.

17.2 Executive Directors' lock-up

Each of the Executive Directors has executed a Lock-Up Deed, pursuant to which he has agreed that, subject to certain customary exceptions more particularly described in paragraph 17.6 below, during the period from and including Admission to and including the fifth anniversary of Admission, he will not, without the prior written consent of the Company (and, during the first year following Admission, the Joint Global Co-ordinators), Dispose of Ordinary Shares held by him at Admission. The percentage of each Executive Director's Ordinary Shares held at Admission that are subject to restrictions on Disposal decreases each year as set out below.

Period[(1)]	Year 1	Year 2	Year 3	Year 4	Year 5
Percentage of Executive Director's Ordinary Shares held at Admission that are subject to restrictions on Disposal in that period	100 per cent.	80 per cent.	60 per cent.	40 per cent.	20 per cent.

Note:

(1) Year 1 refers to the period commencing on Admission and ending on (but excluding) the first anniversary of Admission. Year 2 refers to the period commencing on (and including) the first anniversary of Admission and ending on (but excluding) the second anniversary of Admission. Year 3 refers to the period commencing on (and including) the second anniversary of Admission and ending on (but excluding) the third anniversary of Admission. Year 4 refers to the period commencing on (and including) the third anniversary of Admission and ending on (but excluding) the fourth anniversary of Admission. Year 5 refers to the period commencing on (and including) the fourth anniversary of Admission and ending on (but excluding) the fifth anniversary of Admission.

The Ordinary Shares that will be held by the Executive Directors following completion of the Global Offer, and which will be subject to the Lock-Up Deeds as described above, will in aggregate represent 16.8 per cent. of the issued share capital of the Company (assuming that the Offer Price is at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and the Kazzinc Consideration Shares have not been issued).

17.3 **Existing Shareholders' lock-up**

Each of the Existing Shareholders (other than the Executive Directors) has also executed a Lock-Up Deed, pursuant to which he/she has agreed that, subject to certain customary exceptions more particularly described in paragraph 17.6 below, during a period of time of between one year, two years or four years from and including Admission as set out below, he/she will not, without the prior written consent of the Company (and, during the first year following Admission, the Joint Global Co-ordinators), Dispose of Ordinary Shares held by him/her at Admission. In the case of lock-up arrangements of two years and four years, the percentage of the Existing Shareholder's Ordinary Shares held at Admission that are subject to restrictions on Disposal decreases each year as set out below.

	Percentage of issued share capital following completion of the Global Offer subject to lock-up arrangement of that period[1]	Percentage of Existing Shareholder's Ordinary Shares held at Admission that are subject to restrictions on Disposal in each year[2]			
		Year 1	Year 2	Year 3	Year 4
One year	22.2	100	—	—	—
Two years	12.0	100	50	—	—
Four years	32.6	100	75	50	25

Notes:

(1) Assuming that the Offer Price is at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and the Kazzinc Consideration Shares have not been issued.

(2) Year 1 refers to the period commencing on Admission and ending on (but excluding) the first anniversary of Admission. Year 2 refers to the period commencing on (and including) the first anniversary of Admission and ending on (but excluding) the second anniversary of Admission. Year 3 refers to the period commencing on (and including) the second anniversary of Admission and ending on (but excluding) the third anniversary of Admission. Year 4 refers to the period commencing on (and including) the third anniversary of Admission and ending on (but excluding) the fourth anniversary of Admission.

The Ordinary Shares that will be held by Existing Shareholders (other than the Executive Directors) following completion of the Global Offer, and which will be subject to the Lock-Up Deeds as described above, will in aggregate represent 66.8 per cent. of the issued share capital of the Company (assuming that the Offer Price is at the mid-point of the Offer Price Range, no conversion of the Convertible Bonds, the Over-Allotment Option is not exercised and the Kazzinc Consideration Shares have not been issued).

17.4 **Cornerstone Investors' lock-up**

Each of the Cornerstone Investors has agreed that (subject to certain customary exceptions more particularly described in paragraph 17.7 below), without the prior written consent of the Company and the Joint Global Co-ordinators, it will not, at any time during the period ending six months following UK Admission, directly or indirectly, dispose of any Offer Shares subscribed for by it pursuant to the Cornerstone Investment Agreement to which it is party.

In addition, each Cornerstone Investor has acknowledged that it is in the interests of all holders of Ordinary Shares that a disorderly or false market in the Ordinary Shares is not created at the time of the expiry of the six month lock-up period. Consequently, each Cornerstone Investor has agreed that in the event that the Cornerstone Investor intends to dispose of any Ordinary Shares acquired pursuant to the Cornerstone Investment Agreement within one month after the expiry of the lock-up period, it may approach the Joint Global Co-ordinators (on a non-binding basis and subject to applicable laws and regulations) shortly before the expiry of the lock-up with a view to discussing with the Joint Global Co-ordinators the possibility of arranging such disposal together with the holdings of other Cornerstone Investors who may also intend to dispose of any such Ordinary Shares.

The Ordinary Shares that will be held by Cornerstone Investors following completion of the Global Offer, and which will be subject to the lock-up arrangements as described above, will in aggregate represent 5.1 per cent. of the issued share capital of the Company (assuming that the Offer Price is at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and the Kazzinc Consideration Shares have not been issued).

17.5 **Exceptions to the Company lock-up**

The restrictions to which the Company is subject pursuant to the Underwriting Agreement as described in paragraph 17.1 of this Section X are subject to the following exceptions:

(a) the issue and offer by the Company of the Offer Shares and the issue of the Kazzinc Consideration Shares;

(b) the issue by the Company of any Ordinary Shares or the grant of any options or awards pursuant to the employee share schemes described in paragraph 14 of this Section X;

(c) the issue by the Company of any Ordinary Shares with an aggregate value of up to U.S.$1 billion to fund a specific acquisition, merger or takeover or as part or full consideration for an acquisition, merger or takeover, provided that the subscriber of such Ordinary Shares agrees to be bound by the lock-up restrictions until the date being the expiry of 6 months after UK Admission; and

(d) the issue by the Company of Ordinary Shares to holders of the Convertible Bonds who exercise their rights to convert their Convertible Bonds into Ordinary Shares after UK Admission (as described in this Prospectus).

17.6 **Exceptions to the Lock-Up Deeds**

The restrictions to which the Existing Shareholders and the Executive Directors are subject pursuant to the Lock-Up Deeds do not apply to any Ordinary Shares issued to them pursuant to the Ordinary Shares awarded, and/or exercise of options granted, after Admission under the Glencore employee share schemes described in paragraph 14 of this Section X, and are subject to the following customary exceptions:

(a) any Disposal notified in writing in advance to the Company (and, in the first year following Admission, the Joint Global Co-ordinators) and to which the Company (and, in the first year following Admission, the Joint Global Co-ordinators) gives its (or their) prior consent in writing;

(b) an acceptance of a general offer for the ordinary share capital of the Company made in accordance with the City Code, or the provision of an irrevocable undertaking to accept such an offer, or a sale of Ordinary Shares to an offeror or potential offeror during an offer period (within the meaning of the City Code);

(c) any Disposal of Ordinary Shares pursuant to a compromise or arrangement by the Company with its members or a statutory merger under Jersey law, in each case providing for the acquisition by any person (or group of persons acting in concert, as such expression is defined in the City Code) of 50 per cent. or more of the ordinary share capital of the Company;

(d) any Disposal of Ordinary Shares pursuant to an arrangement by the Company with its creditors under Jersey law;

(e) any Disposal by way of gift by any individual to a family member, to the trustees of a family trust or to a licensed insurance company to be held under a life insurance policy for the individual or any of his/her family members, or by a trustee to a beneficiary of a trust, or by an insurance company to the original life assured, provided that, prior to the making of any such Disposal, the relevant transferee shall have agreed to be bound by the lock-up restrictions in the same terms as the Existing Shareholder;

(f) any Disposal to personal representatives or persons who take after an individual who dies or is incapacitated;

(g) any Disposal of Ordinary Shares by operation of law or pursuant to an order from a court of competent jurisdiction or as otherwise required pursuant to any applicable laws;

(h) any Disposal of rights to new Ordinary Shares granted, or Ordinary Shares subscribed, in respect of a rights issue or other pre-emptive share offering of the Company;

(i) any Disposal of Ordinary Shares pursuant to any offer by the Company to purchase its own Ordinary Shares which is made on identical terms to all holders of Ordinary Shares in the Company; and

(j) any Disposal of Ordinary Shares to Penwith Limited made on the date of Admission for the purpose of Penwith Limited selling such Ordinary Shares as Selling Shareholder in and for the purpose of the Global Offer pursuant to the Underwriting Agreement or for the purpose of Penwith Limited lending such shares pursuant to any stock lending arrangement.

17.7 **Exceptions to the Cornerstone Investors' lock-up**

The restrictions to which the Cornerstone Investors are subject pursuant to the Cornerstone Investment Agreements as described in paragraph 17.4 of this Section X, are subject to the following exceptions:

(a) an acceptance of a general offer for the ordinary share capital of the Company made in accordance with the City Code or the provision of an irrevocable undertaking to accept such an offer or a sale of Ordinary Shares to an offeror or potential offeror during an offer period (within the meaning of the City Code);

(b) any disposal of Ordinary Shares pursuant to a compromise or arrangement under Article 125 of the Jersey Companies Law or pursuant to a merger under Part 18B of the Jersey Companies Law, in each case providing for the acquisition by any person (or group of persons acting in concert as such expression is defined in the City Code) of 50 per cent. or more of the ordinary share capital of the Company;

(c) any disposal of Ordinary Shares (i) pursuant to an arrangement under Article 167 of the Jersey Companies Law in relation to the Company or (ii) by operation of law or pursuant to an order from a court of competent jurisdiction or as otherwise required pursuant to any applicable laws;

(d) any disposal of rights to new Ordinary Shares granted, or of any Ordinary Shares subscribed, in respect of a rights issue or other pre-emptive share offering of the Company or any disposal of Ordinary Shares pursuant to any offer by the Company to purchase its own Ordinary Shares which is made on identical terms to all holders of Ordinary Shares in the Company;

(e) any pledge, charge, mortgage, lien or other structure for giving credit support to the financial institution (each a "security") granted over or in respect of the Offer Shares subscribed for by the Cornerstone Investor pursuant to its relevant Cornerstone Investment Agreement to a financial institution which is providing financing to the Cornerstone Investor in respect of the Ordinary Shares and the transfer of the relevant Ordinary Shares to such financial institution pursuant to such security or its enforcement and any further pledge, repledge, hypothecation, rehypothecation or lending transaction by such financial institution, provided that in the event that such security is enforced, the relevant financial institution agrees to be bound by the lock-up restrictions contained in the Cornerstone Investment Agreement; and

(f) transfers of all or part of the Offer Shares subscribed for by the Cornerstone Investor pursuant to the relevant Cornerstone Investment Agreement to transferees as permitted in the relevant Cornerstone Investment Agreement and on the basis that the transferee will be subject to the same restrictions on disposal as if it were the transferor by the execution and delivery to the Company and the Joint Global Co-ordinators of a deed of adherence to the relevant Cornerstone Investment Agreement;

18 Material contracts

The following are the only contracts (not being contracts entered into in the ordinary course of business) which have been entered into by the Company and/or members of the Glencore Group within the two years immediately preceding the date of this Prospectus or which are expected to be

entered into prior to Admission and which are, or may be, material or which have been entered into at any time by the Company and/or members of the Glencore Group and which contain any provision under which the Company and/or any member of the Glencore Group has any obligation or entitlement which is, or may be, material to the Company and/or the Glencore Group as at the date of this Prospectus:

18.1 **Underwriting Agreement**

Please refer to the description in paragraph 16 above.

18.2 **Cornerstone Investment Agreements**

On 4 May 2011, in connection with the International Offer, the Company, Glencore International, the Joint Global Co-ordinators and the Cornerstone Investors entered into the Cornerstone Investment Agreements.

A brief description of each of the Cornerstone Investors is as set out in paragraph 10.1 of Section VIII: "Details of the Global Offer". Each of the Cornerstone Investment Agreements has been entered into on substantially the same terms. A summary of the material terms of the Cornerstone Investment Agreement is as set out below:

Each Cornerstone Investment Agreement contains, amongst others, the following provisions:

(a) the obligation of the Company to deliver, and the obligation of the Cornerstone Investor to acquire and pay for, the Offer Shares pursuant to the relevant Cornerstone Investment Agreement are subject to certain conditions that are typical for an agreement of this nature. These conditions include:

  (i) the Underwriting Agreement not having been terminated on or prior to 24 May 2011 (or such later time and date as the Company and the Joint Global Co-ordinators may agree and notify to the Cornerstone Investor, being no later than 31 July 2011) (the "Closing Date");

  (ii) the Pricing Agreement being entered into by the parties thereto by the Closing Date and compliance by the Company and the Selling Shareholder with the terms and conditions set forth therein;

  (iii) UK Admission occurring not later than 8.00 a.m. on the Closing Date; and

  (iv) the Offer Price being within the price range set out in this Prospectus;

(b) the Company, Glencore International and the Joint Global Co-ordinators have the right to terminate the Cornerstone Investment Agreement in certain circumstances, including the following:

  (i) in the event that payment for the relevant Offer Shares by the Cornerstone Investor is not received or settled in accordance with the terms of the relevant Cornerstone Investment Agreement; and

  (ii) in the event of a material breach of the terms of the Cornerstone Investment Agreement by the relevant Cornerstone Investor;

(c) the Cornerstone Investor may terminate the Cornerstone Investment Agreement, if there is a material breach by the Company of its obligation to deliver the relevant Offer Shares to the Cornerstone Investor in accordance with the terms of the Cornerstone Investment Agreement;

(d) each of the parties has given certain customary representations and warranties to the other, in particular regarding compliance with laws and regulations affecting the entry into of the Cornerstone Investment Agreement in relevant jurisdictions. The terms of the Cornerstone Investment Agreement do not limit the liability of the parties for breach of contract as to time or amount;

(e) the Company has represented and warranted to each of the Cornerstone Investors that the terms of its Cornerstone Investment Agreement (including any amendment, supplement or side letter) are, in all material respects, the same as the equivalent terms contained in the other Cornerstone Investment Agreements entered into with the other

Cornerstone Investors (including any amendment, supplement or side letter to such agreements), save for any deviations required to reflect the corporate structure of a particular Cornerstone Investor or the manner in which a particular Cornerstone Investor will acquire or hold the Ordinary Shares issued to it pursuant to the terms of the relevant Cornerstone Investment Agreement and the terms on which the Cornerstone Investors which are private banks are engaged by their underlying banking clients;

(f) in addition, the Company has represented and warranted to each of the Cornerstone Investors that no waiver, accommodation or amendment in respect of a Cornerstone Investor's rights and obligations under its relevant Cornerstone Investment Agreement (including any amendment, supplement or side letter to such agreement) shall be extended to any Cornerstone Investor unless such waiver, accommodation or amendment is extended to each other Cornerstone Investor on the same basis contemporaneously therewith; and

(g) each Cornerstone Investor has agreed to certain lock-up arrangements pursuant to the Cornerstone Investment Agreement, as more fully described in paragraph 17.4 above.

The total number of Offer Shares to be acquired by the Cornerstone Investors under the Cornerstone Investment Agreements is set out below:

Name of Cornerstone Investor	Number of Offer Shares subscribed for by the Cornerstone Investor (rounded down to the nearest whole Ordinary Share)[1]	Total amount in U.S.$ committed by the Cornerstone Investor
Aabar	96,226,415	850,000,000
BlackRock	40,754,716	360,000,000[2]
Brookside Capital	25,471,698	225,000,000
Credit Suisse AG[3]	19,811,320	175,000,000
Eton Park Funds	22,641,509	200,000,000
Fidelity	24,339,622	215,000,000
GIC	45,283,018	400,000,000
Och-Ziff	19,811,320	175,000,000
Pictet[3]	11,320,754	100,000,000
UBS AG[3]	11,320,754	100,000,000
York Capital	22,641,509	200,000,000
Zijin	11,320,754	100,000,000
Total	350,943,389	3,100,000,000

Notes:

(1) Assuming that the Offer Price is at the mid-point of the Offer Price Range, the Over-Allotment Option is not exercised and the Kazzinc Consideration Shares have not been issued.

(2) BlackRock Advisors (UK) Limited has agreed to acquire such number of Offer Shares which may be acquired with £95 million, which has been converted into U.S.$158 million based on the pounds sterling/U.S.$ exchange rate of £1.00 = U.S.$1.667 quoted by Bloomberg on 29 April 2011.

(3) As agent on behalf of underlying clients.

18.3 **Xstrata Acquisition Agreement and Xstrata Call Option Agreement**

Xstrata Acquisition Agreement

Pursuant to the sale and purchase agreement dated 29 January 2009 between Glencore International AG, Xstrata (Schweiz) AG and Xstrata Coal South America Ltd. (the "Xstrata Acquisition Agreement"), Glencore agreed to sell, and Xstrata agreed to buy, all of the shares in each of Chestfield Coal Resources Limited, Tikolan Limited, Simkana Limited, Merani Holding Limited and Wichita Holding Limited (the "Prodeco Target Companies") with effect from 1 January 2009. The Prodeco Target Companies collectively held, directly and indirectly, all of the issued shares of each of C.I. Prodeco S.A., Carbones de La Jagua S.A., Carbones El Tesoro S.A., Carbones de la Loma S.A., and Consorcio Minero Unido S.A. (the "Prodeco Operating Companies"). The Prodeco Operating Companies and Ferrocarriles del Norte de Colombia S.A. carry on the Prodeco coal mining operation and associated infrastructure in

Colombia. Glencore's interests in Prodeco are held through the Prodeco Target Companies (the "Prodeco Business").

The aggregate consideration payable by Xstrata Coal South America Ltd. to Glencore under the Xstrata Acquisition Agreement was U.S.$2 billion (subject to certain adjustments to reflect the fact that the economic effect of the transaction was a sale and purchase of the Prodeco Business as at 1 January 2009). Xstrata Coal South America Ltd. also paid interest to Glencore on the purchase price from 1 January 2009 to completion under the Xstrata Acquisition Agreement, which was on 3 March 2009 (the "Prodeco Closing") at LIBOR plus 1.50 per cent.

As is customary for a transaction of this nature, Glencore agreed in a tax covenant to indemnify Xstrata Coal South America Ltd. in respect of certain taxation liabilities of the Prodeco Target Companies and the Prodeco Operating Companies, which, in each case, are attributable to the period up to 1 January 2009. The time limit for tax claims is two months following the expiry of the statutory limitation period in the relevant jurisdiction. Glencore has no liability for any claim under the tax covenant unless (i) any individual claim exceeds U.S.$0.5 million; (ii) all claims (including claims under the Xstrata Acquisition Agreement), in aggregate, exceed U.S.$5 million; and (iii) the claim relates to a loss suffered as a result of the purchase price on the exercise of the option (see below) being reduced. The maximum liability of Glencore for all claims under the Xstrata Acquisition Agreement and the tax covenant is the purchase price (i.e. U.S.$2 billion) payable pursuant to the Xstrata Acquisition Agreement.

Xstrata Call Option Agreement

Pursuant to the option agreement between Glencore International AG and Xstrata (Schweiz) AG dated 29 January 2009 (the "Xstrata Call Option Agreement"), Xstrata (Schweiz) AG agreed to grant Glencore an option to repurchase the Prodeco Business on any day in the period from Prodeco Closing (being 3 March 2009) to the day immediately following the first anniversary of the date on which Prodeco Closing occurs (and, in each case, the day may not be a Saturday, Sunday or bank or public holiday in England and Wales or in the Swiss Canton of Zug and Zurich).

The option was exercised on 4 March 2010.

The aggregate consideration paid by Glencore under the Xstrata Call Option Agreement upon exercise of the option was an amount equal to the purchase price payable by Xstrata Coal South America Ltd. under the Xstrata Acquisition Agreement, as adjusted in accordance with the terms of that agreement, plus U.S.$250 million, plus all profits of the Prodeco Business accrued and not distributed to Xstrata and any cash paid into the Prodeco Business by Xstrata, less any amounts distributed by the Prodeco Target Companies to Xstrata, in each case in the period from 1 January 2009 to 13 April 2010, being the date on which the sale of the Prodeco Business pursuant to the exercise of the option was completed. Xstrata retained the economic benefit of profits generated by the Prodeco Business in this period.

Xstrata (Schweiz) AG gave limited warranties to Glencore, including as to Xstrata's ownership at the relevant time of the relevant shares in the Prodeco Target Companies and Xstrata (Schweiz) AG's authority to enter into and perform the Xstrata Call Option Agreement. There is no time limit on these warranties.

18.4 **The revolving credit facilities agreement**

On 10 May 2010 (the "Signing Date"), Glencore International (the "Parent"), Glencore Singapore Pte Ltd. ("GSPL") and Glencore AG entered into a U.S.$10.22 billion revolving credit facilities agreement (the "RCF Agreement" and the facilities granted thereby, the "Facilities") with, among others, Banc of America Securities Limited, Banco Santander, S.A., London Branch, Barclays Capital (the investment banking division of Barclays Bank PLC), BNP Paribas, Citigroup Global Markets Limited, Commerzbank Aktiengesellschaft, London Branch, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. (trading as Rabobank International), London Branch, Crédit Agricole Corporate and Investment Bank, Credit Suisse AG, DBS Bank Ltd., London Branch, Deutsche Bank Luxembourg S.A., Fortis Bank (Nederland) N.V., HSBC Bank plc, ING Bank N.V., J.P. Morgan plc, Lloyds TSB Bank plc, Morgan Stanley Bank International Limited, Société Générale Corporate & Investment Banking, Standard Chartered Bank, The Royal Bank of Scotland plc and UBS Limited as

mandated lead arrangers with Barclays Bank PLC acting as facility agent and swingline agent and various financial institutions as lenders. The Parent and GSPL are borrowers under the RCF Agreement. Glencore AG provides a guarantee for the Parent's borrowing obligations and the Parent provides a guarantee of GSPL's borrowing obligations.

There are three separate Facilities under the RCF Agreement, namely Facility A, Facility B and Facility C. Facility C is further divided into two tranches, namely Facility C1 and Facility C2. Facility B also contains a swingline option. Facility A includes an option whereby the revolving advances may be converted into a term advance (such option being the "Term Out Option" and such advance being the "Term Out Advance"). Facility A also includes an extension option whereby the maturity date of Facility A may be extended by a period of 364 days from its initial maturity date (the "Facility A Extension Option"). Facility B includes two extension options ("Facility B First Extension Option" and "Facility B Second Extension Option") whereby the maturity date of Facility B may, in each case, be extended by a period of 12 months from the then applicable maturity date. The Parent may choose to exercise either of the two extension options under Facility B, or both.

The Facilities are to be used towards working capital or general corporate purposes of Glencore, including, in the case of Facilities A and B, towards refinancing certain of its existing facilities.

The availability of the Facilities is as follows:

(a) Facility A is available until the date falling seven days prior to the Facility A Maturity Date (as defined below);

(b) Facility B is available until the date falling seven days prior to the Facility B Maturity Date (as defined below); and

(c) Facility C is available until the date falling seven days prior to the Facility C Maturity Date (as defined below).

Interest is payable on advances under each of the Facilities at the rate which is the aggregate of:

(a) the margin applicable to the relevant Facility as follows:

  (i) in relation to Facility A advances (other than the Term Out Advance), 1.50 per cent. per annum;

  (ii) in relation to the Term Out Advance, 2 per cent. per annum;

  (iii) in relation to Facility B advances, the margin varies between 1.250 per cent. and 2.125 per cent. per annum, depending on the then current rating assigned by Standard & Poor's and/or Moody's in respect of the Parent's long-term senior unsecured debt; and

  (iv) in relation to Facility C advances, 1.35 per cent. per annum;

(b) LIBOR; and

(c) the mandatory cost (being the regulatory costs of the lenders which are passed on to the borrowers).

The maturity dates of the Facilities are as follows:

(a) Facility A matures on:

  (i) the day falling 364 days after the Signing Date; or

  (ii) if the maturity date of Facility A has been extended under the Facility A Extension Option, the day falling 728 days after the Signing Date,

  such maturity date being the "Facility A Maturity Date";

(b) the Term Out Advance matures 12 months from the Facility A Maturity Date (or any shorter period, as is agreed);

(c) Facility B matures on:

  (i) the day falling 36 months after the Signing Date; or

(ii) if only the Facility B First Extension Option or Facility B Second Extension Option is exercised, the day falling 48 months from the Signing Date; or

(iii) if both the Facility B First Extension Option and the Facility B Second Extension Option are exercised, the day falling 60 months from the Signing Date,

(such maturity date being the "Facility B Maturity Date"); and

(d) Facility C matures on the day falling 364 days after the Signing Date (the "Facility C Maturity Date").

The RCF Agreement includes a mandatory prepayment provision in the event of certain specified change of control events.

The RCF Agreement includes certain financial covenants that require Glencore to maintain certain financial ratios. Pursuant to these covenants, which are calculated in accordance with IFRS, on (i) the last day of each financial year and (ii) 30 June in each year (or such other date as is the end of the first half of each financial year), the consolidated financial condition of the Parent and its subsidiaries, as is evidenced by its latest consolidated financial statements, shall be such that:

(a) net consolidated working capital shall not be less than U.S.$750 million;

(b) the ratio of consolidated current assets to consolidated current liabilities shall not fall below 1.10:1; and

(c) long-term debt shall not be more than 120 per cent. of consolidated tangible net worth.

The RCF Agreement contains representations, warranties and undertakings which are typical for these types of credit arrangements. The RCF Agreement also contains customary events of default upon occurrence of which the lenders may cancel their lending commitments and demand repayment of the advances.

On 3 May 2011 (the "New RCF Signing Date"), the Parent, Glencore AG and GSPL entered into a new U.S.$3,535 million revolving credit facilities agreement (the "New RCF Agreement" and the facilities granted thereby, the "New Facilities") with, among others, substantially the same banks as under the RCF Agreement, as mandated lead arrangers, and Barclays Bank PLC as facility agent. The borrowers and guarantors under the New RCF Agreement are the same as under the RCF Agreement. Facility A, Facility C1 and Facility C2 under the RCF Agreement were refinanced by the New Facilities. There are two separate facilities under the New RCF Agreement, namely a U.S.$2,925 million Facility A1 ("New Facility A1") and a U.S.$610 million Facility A2 ("New Facility A2").

The maturity date of each of the New Facilities is the day falling 364 days after the New RCF Signing Date and both have a one year extension option exercisable at the borrower's discretion. The New Facilities each include an option whereby the revolving advances may be converted into a term advance (each such advance being a "New Facility Term Out Advance").

In addition, the Parent extended the final maturity of U.S.$8,340 million of Facility B for a further year to May 2014. The New Facilities, in aggregate with the amount extended under Facility B represent an increase in committed available liquidity of U.S.$1,645 million.

The representations, warranties, undertakings and events of default contained in the New RCF Agreement are substantially the same as those in the RCF Agreement.

Interest is payable on advances under the New Facilities at the rate which is the aggregate of the applicable margin, LIBOR and the mandatory cost (being the regulatory costs of the lenders which are passed on to the borrowers). The applicable margin for an advance (other than a New Facility Term Out Advance) under each of the New Facilities is 1.10 per cent. per annum. The applicable margin in respect of a New Facility Term Out Advance is 1.60 per cent. per annum.

18.5 **Committed secured borrowing base facility agreement**

On 10 November 2010 (the "Signing Date"), Glencore International AG (the "Borrower") and Glencore AG (the "Guarantor") entered into a U.S.$1.7 billion committed secured borrowing base facility agreement (the "Base Facility Agreement" and the facility granted under the Base

Facility Agreement, being the "Base Facility") with, among others, BNP Paribas in each of its capacities as bookrunner and global co-ordinator, as agent, as security agent in respect of inventory and cash collateral, and as security agent in respect of receivables, and various financial institutions as lenders. The Guarantor provides a guarantee for the Borrower's obligations under and in connection with the Base Facility Agreement and the other finance documents.

The Base Facility includes an extension option whereby the maturity date may be extended by a period of 364 days from its Initial Maturity Date (as defined below) (the "Base Facility Extension Option").

The Base Facility is to be used towards working capital purposes, being: (i) the financing of the Borrower's physical base metal inventory of aluminium, copper, lead, nickel, zinc and tin; and (ii) the financing of receivables due to the Borrower or the Guarantor by their debtors, arising in the ordinary course of the Borrower's or the Guarantor's business.

The Base Facility is available until the date falling one week prior to the Termination Date (as defined below).

Interest is payable on advances under the Base Facility at the rate which is the aggregate of:

(a) 1.10 per cent. per annum;

(b) LIBOR; and

(c) mandatory cost (being regulatory costs of the lenders which are passed on to the borrowers).

The Base Facility matures on:

(a) the day falling 364 days after the Signing Date (the "Initial Maturity Date"); or

(b) if the Initial Maturity Date has been extended under the Base Facility Extension Option, the day falling 728 days after the Signing Date,

such maturity date being the "Termination Date".

The Base Facility Agreement includes mandatory prepayment provisions in the event of certain specified events (including a change of control event).

The Base Facility Agreement includes certain financial covenants that require Glencore to maintain certain financial ratios. Pursuant to these covenants, which are calculated in accordance with IFRS, on the last day of each financial year and on 30 June in each year, the consolidated financial condition of the Borrower and its subsidiaries, as evidenced by its latest consolidated financial statements, shall be such that:

(a) net consolidated working capital shall not be less than U.S.$750 million;

(b) the ratio of consolidated current assets to consolidated current liabilities shall not fall below 1.10:1; and

(c) long-term debt shall not be more than 120 per cent. of consolidated tangible net worth.

The Base Facility Agreement contains representations, warranties and undertakings, which are typical for these types of credit arrangements. The Base Facility Agreement also contains customary events of default, upon occurrence of which the lenders may cancel their lending commitments and demand repayment of the advances.

18.6 **U.S.$2.3 billion 5 per cent. guaranteed convertible bonds due 2014**

Glencore Finance (Europe) S.A. (the "Issuer") issued (i) U.S.$2.2 billion 5 per cent. guaranteed convertible bonds due 2014 (the "Original Bonds") constituted by a trust deed dated 23 December 2009 between the Issuer, Glencore International AG, Glencore AG and Citicorp Trustee Company Limited (the "Original Trust Deed") and (ii) a further U.S.$100 million 5 per cent. guaranteed convertible bonds due 2014 (to be consolidated and to form a single series with the Original Bonds) (together with the Original Bonds, the "Bonds"), constituted by the Original Trust Deed as supplemented by a supplemental trust deed dated 10 March 2010 between the Issuer, Glencore International AG, Glencore AG (Glencore

International AG and Glencore AG together, the "Guarantors") and Citicorp Trustee Company Limited (the "Trustee") (together with the Original Trust Deed, the "Trust Deed"). The Bonds constitute direct, general and unconditional obligations of the Issuer.

(a) Guarantee agreement

Pursuant to a guarantee agreement dated 23 December 2009, the Guarantors have unconditionally (subject, in the case of Glencore AG, to applicable Swiss law) and irrevocably guaranteed on a joint and several basis the due and punctual payment of all sums from time to time payable by the Issuer in respect of the Bonds.

(b) Negative pledge

Under the terms of the Bonds, none of the Issuer and the Guarantors will, and the Guarantors will not permit any material subsidiary to, directly or indirectly, create, incur, assume or permit to exist any mortgage, charge, pledge, lien or other security interest, except in certain limited circumstances, on or with respect to any property or assets of such entity or any interest therein or any income or profits therefrom to secure any present or future indebtedness in the form of, or represented or evidenced by, notes, bonds, debentures, debenture stock, loan stock or other securities which are, or are intended to be, with the consent of the person issuing the same, quoted, listed or ordinarily traded on any stock exchange or recognised over-the-counter or other securities market, and any guarantee or indemnity in respect thereof.

(c) Redemption

Unless previously redeemed, converted or purchased and cancelled, the Bonds will mature on 31 December 2014 (the "Maturity Date").

Following a qualifying IPO or a specified merger event, unless previously redeemed, converted or purchased and cancelled, the Issuer will redeem each Bond at its principal amount on the Maturity Date. The Bonds may also be redeemed at the option of the Issuer on the occurrence of certain tax events. Bondholders may require the Issuer to redeem the Bonds in certain limited circumstances, including in the event of a change of control.

If a qualifying IPO or a specified merger has not occurred prior to the Maturity Date, unless previously redeemed, converted or purchased and cancelled, the Issuer will redeem each Bond at 108.10 per cent. of its principal amount on the Maturity Date.

If a qualifying IPO or specified merger event has not occurred by a specified date, bondholders have the right to put their Bonds, if bondholders have requested the Glencore group to carry out a qualifying IPO and certain other conditions have been met, and such request has not been met by a specified date, at a redemption price of between 165.85 per cent. and 209.90 per cent., depending on the relevant redemption date.

(d) Qualifying initial public offering

Under the Bonds, a qualifying IPO shall occur if there is an offering of shares in Holdco by Holdco and/or Existing Shareholders for subscription or sale for cash to retail and/or institutional investors accompanied by the listing and admission to trading of such shares on the London Stock Exchange (premium listing), or other specified stock exchange, and provided that a liquidity condition linked to the amount of free float in respect of the shares is satisfied. If the liquidity condition is not satisfied, bondholders may waive such condition by extraordinary resolution within 120 days following the relevant listing.

(e) Conversion

Following a qualifying IPO or a specified merger event, the Bonds will be convertible into ordinary shares of Holdco at any time up to the 14th day prior to the Maturity Date. The number of shares issued to a bondholder upon conversion shall be equal to the relevant conversion ratio (subject to adjustment in certain circumstances) in effect on the relevant conversion date, as set out in the terms and conditions of the Bonds.

In addition, following a qualifying IPO, the Bonds will be convertible into ordinary shares of Holdco at the option of the Issuer at the conversion ratio in effect on the relevant conversion date, at any time during the period beginning 18 months after the listing and ending on the 14th day prior to the Maturity Date, provided that the share price exceeds 150 per cent. of the conversion ratio for a specified period.

The conversion ratio is subject to adjustment from time to time, for so long as the Bonds remain outstanding, as a result of certain corporate actions taken by the Issuer, the Guarantors and/or Holdco.

Bondholders who exercise conversion rights, other than bondholders who elect to exercise conversion rights and subsequently sell their shares as part of a secondary offering pursuant to the terms and conditions of the Bonds, will not be permitted to sell such shares until the earlier of (i) 90 days from the date of UK Admission; and (ii) the expiry of lock-up arrangements in respect of any Existing Shareholders.

(f) Events of default

An event of default under the Bonds will occur in certain circumstances, including, but not limited to, in respect of a failure to pay principal or interest in respect of the Bonds on the due date for payment thereof and such default continues for a period of 14 days, if the guarantee agreement is not in full force and effect, if any of the Issuer, the Guarantor or any material subsidiary fails to pay when due certain financial indebtedness, or such financial indebtedness becomes due and payable, or where there is a failure to pay when due under any applicable grace period amounts owing under the guarantee, in each case in circumstances where the amount of such financial indebtedness and/or the amount payable under such guarantee individually or in the aggregate exceeds U.S.$50 million (or its equivalent in another currency). If any event of default occurs and is continuing, the Trustee at its discretion may and, if so requested in writing by holders of at least one quarter in principal amount of the outstanding Bonds or if so directed by an extraordinary resolution of the bondholders, shall (subject in certain cases to the Trustee having certified in writing that the happening of such events is in its opinion materially prejudicial to the interests of the bondholders) declare the Bonds due and payable at their principal amount together with accrued interest.

18.7 **U.S.$10 billion EMTN Programme**

Glencore Finance (Europe) S.A. has established a U.S.$10 billion Euro Medium Term Note Programme (the "EMTN Program") under which it may from time to time issue notes (the "EMTN Notes") unconditionally (subject, in the case of Glencore AG, to applicable Swiss law) and irrevocably guaranteed on a joint and several basis by the Guarantors. Deutsche Trustee Company Limited is appointed as trustee (the "Trustee") of the EMTN Notes pursuant to an amended and restated trust deed dated 21 June 2010.

An event of default under the EMTN Notes will occur in certain circumstances, including, but not limited to, in respect of a failure to pay principal or interest in respect of the EMTN Notes on the due date for payment thereof and such default continues for a period of 14 days, if the guarantee agreement is not in full force and effect, if any of the Issuer, the Guarantor or any material subsidiary fails to pay when due certain financial indebtedness, or such financial indebtedness becomes due and payable, or where there is a failure to pay when due under any applicable grace period amounts owing under the guarantee, in each case in circumstances where the amount of such financial indebtedness and/or the amount payable under such guarantee individually or in the aggregate exceeds U.S.$50 million (or its equivalent in another currency).

If any event of default occurs and is continuing, the Trustee at its discretion may and, if so requested in writing by holders of at least one quarter in principal amount of the relevant outstanding EMTN Notes or if so directed by an extraordinary resolution of the noteholders, shall (subject in certain cases to the Trustee having certified in writing that the happening of such events is in its opinion materially prejudicial to the interests of the noteholders) declare the EMTN Notes due and payable at their principal amount together with accrued interest.

As at 29 April 2011, the last practicable date prior to publication of this Prospectus, U.S.$7.9 billion in principal amount of EMTN Notes is outstanding under the EMTN Program.

18.8 **Financing Transaction with Credit Suisse International ("CS") relating to shares in Xstrata (the "CS Financing Transaction") effective as of the first business day after 27 March 2008**

Finges Investment B.V. ("Finges"), a subsidiary of Glencore, entered into the CS Financing Transaction with CS effective as of the first business day after 27 March 2008 in order to obtain financing. The original loan amount under the CS Financing Transaction was U.S.$1.5 billion. Finges "prepaid" U.S.$500 million principal amount of the loan on 14 October 2008, and a further U.S.$250 million principal amount on 29 December 2008, but redrew U.S.$250 million principal amount on 22 April 2009, thereby bringing the principal amount outstanding under the loan to U.S.$1 billion currently. Upon the satisfaction of certain contractual conditions, Finges may increase the amount of financing back up to U.S.$1.5 billion. The loan was structured by way of a prepaid forward sale of a certain number of Xstrata shares by Finges to CS, and a simultaneous equity swap transaction by Finges hedging the exposure of Finges under the prepaid forward sale.

In connection with the CS Financing Transaction, Finges has provided security over a certain number of shares in Xstrata for the benefit of CS in respect of the obligations owed by Finges to CS under the CS Financing Transaction. As at 29 April 2011, the last practicable date before the publication of this Prospectus, the number of Xstrata shares subject to the security arrangement was 70,677,852.

Glencore has guaranteed the payment obligations of Finges under the CS Financing Transaction pursuant to a Swiss law guarantee provided to CS on 11 September 2007, as amended on 27 March 2008.

18.9 **Financing Transaction with the Banks (as defined below) relating to shares in Xstrata (the "Bank Financing Transaction") effective as of the second business day after 25 September 2009**

Finges Investment B.V. ("Finges"), a subsidiary of Glencore, entered into the Bank Financing Transaction with Barclays Bank PLC, Société Générale, The Royal Bank of Scotland plc and Calyon (now known as Crédit Agricole Corporate and Investment Bank following a name change) (together, the "Banks" and each, a "Bank") effective as of the second business day after 25 September 2009 in order to obtain financing. The principal amount outstanding under the loan is currently U.S.$1.3 billion. The loan was structured by way of a prepaid forward sale of a certain number of Xstrata shares by Finges to each of the Banks, and a simultaneous equity swap transaction by Finges hedging the exposure of Finges under the prepaid forward sale.

In connection with the Bank Financing Transaction, Finges has provided security over a certain number of shares in Xstrata for the benefit of each Bank in respect of the obligations owed by Finges to the Banks under the Bank Financing Transaction. As at 29 April 2011, the last practicable date before the publication of this Prospectus, the number of Xstrata shares subject to the security arrangement was 91,881,208.

Glencore has guaranteed the payment obligations of Finges under the Bank Financing Transaction pursuant to a Swiss law guarantee provided to the Banks on 24 September 2009.

18.10 **U.S.$950 million 6 per cent. notes due 2014**

Glencore Funding LLC (the "Issuer") issued (i) U.S.$800 million 6 per cent. notes due 2014 (the "Original Notes") at an issue price of 99.285 per cent. under an indenture dated 5 April 2004 between the Issuer, Glencore International AG, Glencore AG, JPMorgan Chase Bank and BNP Paribas Securities Services, Luxembourg Branch (the "Original Indenture") and (ii) a further U.S.$150 million 6 per cent. notes at an issue price of 96.647 per cent. (fungible, consolidated and to form a single singles with the Original Notes) (together with the Original Notes, the "Notes") issued under the Original Indenture as supplemented by a supplemental indenture dated 21 April 2004 between the Issuer, Glencore International AG, Glencore AG (Glencore International AG and Glencore AG together, the "Guarantors"), JPMorgan Chase Bank (the "Trustee") and BNP Paribas Securities Services, Luxembourg Branch. Interest on the Notes is payable semi-annually in arrears on 15 April and 15 October of each year. The Notes constitute direct, unsecured and unsubordinated obligations of the Issuer.

(a) Guarantee agreement

The Guarantors, jointly and severally, unconditionally (subject, in the case of Glencore AG, to applicable Swiss Law) guarantee the due and punctual payment of the principal and interest on the Notes as they become due and payable (the "Guarantees"). Each Guarantee is a secured obligation of the applicable Guarantor and ranks *pari passu* in right of payment with other unsecured and unsubordinated indebtedness of that Guarantor.

(b) Covenants

Under the Original Indenture, the Issuer and the Guarantors have agreed certain restrictive covenants, including that neither the Issuer nor either of the Guarantors will, and Glencore International AG will not permit any restricted subsidiary to, create, incur or assume any lien on any property or asset of the Issuer, either of the Guarantors or any restricted subsidiary, or any interest therein or any income or profit therefrom, securing any financial indebtedness or interest on any financial indebtedness other than in certain limited circumstances.

The Issuer and each Guarantor, and Glencore International AG on behalf of the restricted subsidiaries, have covenanted with respect to certain limitations for sale and leaseback transactions. The Issuer and each Guarantor have also covenanted with respect to limitations on consolidations, mergers and the conveying, transferring or leasing of their properties and assets.

(c) Redemption

Unless previously redeemed or purchased, the Issuer will redeem each Note on 15 April 2014 (the "Maturity Date"). Notes may also be redeemed at the option of the Issuer or either of the Guarantors in whole or in part at any time for a price equal to the greater of (i) 100 per cent. of the principal amount of the Notes to be redeemed and (ii) the sum of the present values of the applicable remaining scheduled payments discounted to the date of redemption on a semi-annual basis at the U.S. treasury rate plus 35 basis points, together with, in each case, accrued interest on the principal amount of the Notes to be redeemed at the date of redemption. There is no restriction on the ability of the Issuer, the Guarantors or their subsidiaries to purchase or repurchase Notes. Notes are also redeemable at the option of the Issuer or either Guarantor on the occurrence of certain tax events.

(d) Events of default

An event of default under the Notes will occur in certain circumstances, including, but not limited to, a failure to pay any instalment of interest or additional amounts as they become due and payable and continuing for 30 days, non-payment of all or any part of the principal of any of the Notes when due and payable or if there is a failure to perform, or breach of any covenants continuing for 60 days following written notice of such breach. An event of default will also occur if there is a default under any other indebtedness of the Issuer, Guarantors or restricted subsidiary, or such indebtedness is not paid when due within any applicable grace period, or there is a failure by the Issuer, Guarantors or restricted subsidiaries to pay amounts payable under any guarantee or indemnity in respect of borrowed money, in each case provided that the aggregate amount of such financial indebtedness and/or the amount payable under such guarantee or indemnity exceeds U.S.$50 million.

Where an event of default occurs and is continuing, either the Trustee or the holders of not less than 25 per cent. in aggregate principal amount of the Notes then outstanding, by notice in writing to the Issuer and the Guarantors, may declare the entire principal amount of all Notes and interest accrued thereon to be due and payable.

18.11 **Glencore International Purchase Agreement**

Pursuant to the Glencore International Purchase Agreement dated 3 May 2011 between Revelstoke Limited and the Company, Revelstoke Limited has agreed to sell and the Company

has agreed to purchase on the day before the date of UK Admission the entire issued ordinary share capital of Glencore International. In consideration of the transfer to it of the entire issued share capital of Glencore International, the Company has agreed to issue to Revelstoke Limited, on behalf of the Existing Shareholders, 6,000,000,000 Ordinary Shares. As a consequence of the Glencore International Purchase Agreement, the Company will become the parent company of the Group on the day before the date of UK Admission.

18.12 **Kazzinc Share Purchase Agreements**

On 13 April 2011, Glencore International entered into two agreements with respect to the 48.73 per cent. interest in Kazzinc currently held indirectly by Verny Investments and Verny Rost:

(a) a share purchase and option agreement between Glencore International, Pasar Holdings Incorporated AG (a wholly owned Group company) ("Pasar Holdings") and Verny Capital, acting in the interests of Verny Investments (the "Verny Investments SPA"); and

(b) a share purchase agreement between Glencore International, Kazastur Zinc AG (a wholly owned Group company) ("Kazastur") and Verny Capital, acting in the interests of Verny Rost (the "Verny Rost SPA" and, together with the Verny Investments SPA, the "Kazzinc SPAs").

Pursuant to the Verny Investments SPA, Pasar Holdings has agreed to purchase a 12.50 per cent. interest in Kazzinc through the acquisition of interests in holding entities from Verny Investments (the "Kazzinc Tranche 1 Acquisition").

The consideration for the Kazzinc Tranche 1 Acquisition shall be satisfied on closing under the Verny Investments SPA by the issue of such number of Ordinary Shares to Verny Investments, at the Offer Price, as is equal to U.S.$1,000,000,000 (the "Kazzinc Consideration Shares"). The Kazzinc Consideration Shares shall, when issued, be subject to a lock-up with a duration of six months from issue.

Pursuant to the Verny Rost SPA, Kazastur has agreed to purchase a 29.82 per cent interest in Kazzinc, through the acquisition of interests in holding entities from Verny Rost (the "Kazzinc Tranche 2 Acquisition").

Closing under the Verny Rost SPA will be staggered such that a 9.94 per cent interest in Kazzinc will be acquired by Kazastur through the acquisition of interests in holding entities from Verny Rost on the first business day of each of October, November and December 2011 (each a "Tranche 2 Closing Date").

The consideration for the Kazzinc Tranche 2 Acquisition shall be satisfied by the payment in cash of U.S.$2,200,000,000, which shall be paid in installments of U.S.$733,333,333.33 on each Tranche 2 Closing Date (the "Tranche 2 Consideration").

Both the Kazzinc Tranche 1 Acquisition and the Kazzinc Tranche 2 Acquisition are subject to certain conditions precedent, including receipt of approvals for the transaction from the Government of Kazakhstan and the occurrence of UK Admission.

The Verny Investments SPA further sets out the agreement between Verny Investments and Pasar Holdings with respect to the terms of a possible acquisition by Pasar Holdings of Verny Investments' remaining 6.41 per cent. interest in Kazzinc (held indirectly) (the "Kazzinc Tranche 3 Acquisition").

Pasar Holdings and Verny Investments have a call option and a put option, respectively, in relation to the Kazzinc Tranche 3 Acquisition. Closing of the call option or put option is conditional upon, amongst other things, (i) completion of the Kazzinc Tranche 1 Acquisition; (ii) receipt of consent and waiver of pre-emption right from the Ministry of Industry and New Technologies of the Republic of Kazakhstan; (iii) subject, in both cases, to Glencore's commercial decisions on the basis of prevailing market conditions the hive-down of all of Kazzinc's gold assets (excluding its non-ferrous business) to a new holding company wholly owned by Kazzinc ("Altyntau") and Pasar Holdings using its reasonable commercial endeavours to ensure Altyntau's listing on the Premium Listing segment of the Official List, subject to eligibility; and (iv) the publication of a pricing statement related to the initial public offering of Altyntau ("Altyntau IPO"). The put or call option may only be exercised after completion of the

Kazzinc Tranche 1 Acquisition and before the earlier of: (i) the date falling two months prior to the proposed intention to float date for Altyntau (or such other date as the parties may agree in writing) and (ii) 31 December 2012; and if the put or call option is not exercised on or before 31 December 2012 then they shall lapse.

The consideration payable by Pasar Holdings following exercise of the put or call option shall be:

(a) a cash amount of U.S$ 192,000,000, plus

(b) a cash amount equal to 6.41 per cent of the issued share capital of Altyntau multiplied by the Altyntau IPO offer price (the "Altyntau Stake Value"), minus

(c) a cash amount equal to 6.41 per cent of the Altyntau Stake Value,

(the "Option Consideration").

The parties to the Verny Investments SPA have further agreed that, following completion of the exercise of the put or call option, Verny Investments shall subscribe for such number of shares in Altyntau as is equal to 6.41 per cent. of Altyntau's issued share capital (the "Kazzinc Subscription Shares") for an amount in cash equal to the Altyntau Stake Value (the "Verny Investments Subscription"). The Kazzinc Subscription Shares shall be issued to Verny Investments prior to admission to trading of the Altyntau shares on completion of the Altyntau IPO.

If UK Admission is not achieved by 30 June 2011, either Pasar Holdings or Verny Investments may terminate the Verny Investments SPA and either Kazastur or Verny Rost may terminate the Verny Rost SPA.

Further, if the Glencore Group, in its sole discretion, decides not to proceed with the Global Offer, and thereby determines that UK Admission is not likely to be achieved by 30 June 2011, Pasar Holdings and Kazastur may terminate the Verny Investments SPA and the Verny Rost SPA, respectively.

Pursuant to the Verny Investments SPA and Verny Rost SPA, Verny Investments and Verny Rost, respectively, have given certain warranties and indemnities to Pasar Holdings and Kazastur respectively, and Pasar Holdings and Kazastur, respectively, have given certain limited warranties to Verny Investments and Verny Rost, respectively.

In the event of any breach of the Verny Investments SPA by Verny Investments, Pasar Holdings shall have the right to reduce the Option Consideration, to the extent unpaid. In the event of any breach of the Verny Rost SPA by Verny Rost, Kazastur shall have the right to reduce the Tranche 2 Consideration, to the extent unpaid.

Glencore International has guaranteed the obligations of Pasar Holdings and Kazastur under the Verny Investments SPA and Verny Rost SPA, respectively.

18.13 **OAO RussNeft Loan Agreement**

On 21 December 2010, OAO RussNeft and Interseal Limited, a member of the Glencore Group ("Interseal"), entered into an amendment and restatement agreement (the "Consolidated Loan Agreement") which amended and consolidated various loans that had been made by Interseal to OAO RussNeft. This amendment was put in place as part of a wider restructuring of OAO RussNeft's indebtedness.

As a result of the amendment and consolidation effected by that agreement, a single loan from Interseal to OAO RussNeft is outstanding in an amount of U.S.$2,080,655,312.12 (the "Outstanding Principal Amount").

The Consolidated Loan Agreement provides that:

(a) interest is payable on the Outstanding Principal Amount at a minimum interest rate of 9 per cent. per annum, 3 per cent of which is payable quarterly in cash, so long as all indebtedness owed by OAO RussNeft to Sberbank of Russia remains outstanding and is current, with the balance of the interest being accrued for future payment. This accrued interest, together with an amount of unpaid interest accrued prior to the execution of the

Consolidated Loan Agreement, is payable by OAO RussNeft to Interseal monthly along with the Outstanding Principal Amount in the circumstances described in (b) below;

(b) the Outstanding Principal Amount, together with accrued and unpaid interest, is only to be repaid following the repayment in full of all indebtedness owed by OAO RussNeft to Sberbank of Russia, and then in minimum monthly instalments of U.S.$96,000,000, commencing in last quarter of 2017;

(c) in addition to the monthly instalments in (b) above, following the repayment in full of the indebtedness owed by OAO RussNeft to Sberbank of Russia, a quarterly cash sweep will also require OAO RussNeft to reduce further the Outstanding Principal Amount by an amount equal to excess cashflow (i.e. the amount by which cashflow exceeds debt service) generated during the relevant quarter; and

(d) in any event, OAO RussNeft is required to repay the Outstanding Principal Amount, together with all accrued and unpaid interest, in full to Interseal on or before 31 December 2020.

The Consolidated Loan Agreement also includes representations, warranties and undertakings from OAO RussNeft which are typical for these types of credit arrangements. The Consolidated Loan Agreement also contains customary events of default upon occurrence of which Interseal may demand repayment of the Outstanding Principal Amount.

The amounts outstanding under the Consolidated Loan Agreement are secured by various pledges of shares of members of the OAO RussNeft group, the enforcement of which is to be agreed with Sberbank of Russia whilst all indebtedness owed to it by OAO RussNeft remains outstanding.

19 Related party transactions

Details of related party transactions entered into by members of the Glencore Group during the period covered by the historical financial information and up to the date of this Prospectus are set out in Notes 14, 26 and 28 to the combined financial information contained in Section VI: "Historical Financial Information".

20 Property, plant and equipment

Glencore's material assets are its mining and exploration claims, permits and licences, the most significant of which are summarised in the MERs included in Section XIV: "Independent Technical Reports".

In addition, Glencore leases or uses under licence properties for its business operations around the world. The Directors of the Company are of the opinion that there are currently no material environmental issues that affect Glencore's utilisation of any property or other tangible fixed assets.

For the three years ended 31 December 2010, and in the context of the Glencore Group taken as a whole, Glencore is of the view that in relation to its controlled industrial assets, there have been no material breaches of any material applicable environmental laws and regulations.

21 Intellectual property rights of Glencore

Glencore owns or uses certain intellectual property rights for its business operations around the world. These key rights are as noted below. However, Glencore does not consider these rights to be material to the business of the Glencore Group, as a whole.

21.1 Trademarks

As at 29 April 2011, the last practicable date prior to publication of the Prospectus, the key trademark in relation to Glencore's business as a whole was the "GLENCORE" logo.

Glencore has approximately 424 trademark applications and registrations relating to the Glencore Group in approximately 117 countries. These trademarks are currently registered, or have been applied for, in the names of companies in the Glencore Group.

21.2 **Domain names**

As at 29 April 2011, the last practicable date prior to publication of the Prospectus, the key domain name registration in relation to Glencore's business as a whole was www.glencore.com.

22 Administrative and judicial proceedings

Neither the Company, nor any member of the Glencore Group is or has in the last 12 months been involved in any governmental, legal or arbitration proceedings which may have, or have had in the recent past, a significant effect on the Company's and/or Glencore's financial position or profitability. So far as the Company is aware, no such proceedings are pending or threatened by or against the Company or any member of Glencore.

23 Other proceedings

In a criminal investigation in Belgium against a public official, the European Commission's Directorate-General for Agriculture ("DG AGRI") and others for violation of professional secrecy, corruption of an international civil servant and criminal conspiracy, Glencore Grain Rotterdam BV, a subsidiary of Glencore, a former employee and one current employee have been charged with having committed corruption in exchange for information covered by professional secrecy in the course of the applications for European export restitutions. Following a complaint by the European Anti-Fraud Office (the "OLAF"), the investigation led by the Brussels Prosecutor's office in co-operation with the European Commission and the French and Dutch police and judicial authorities was initiated in October 2003, covering facts dating from 1999 until 2003. The European Commission became a civil party to this case without quantifying the damage at this stage. The trial is expected to be scheduled in 2011.

24 Significant change

There has been no significant change in the financial or trading position of the Company and/or the Glencore Group since 31 December 2010, the date to which the financial information for the Glencore Group in Section B of Section VI: "Historical Financial Information" was prepared.

25 Consents

25.1 Deloitte LLP (a member of the Institute of Chartered Accountants in England and Wales) has given and has not withdrawn its written consent to the inclusion in this Prospectus of its reports which are set out in Section VI: "Historical Financial Information" and Section VII: "Unaudited Pro Forma Financial Information" and/or references to its name included herein in the form and context in which it appears and has authorised the contents of those parts of this Prospectus which comprise its reports for the purposes of Rule 5.5.3R(2)(f) of the Prospectus Rules. As the Offer Shares have not been and will not be registered under the Securities Act, Deloitte LLP has not filed and will not be required to file a consent under the Securities Act.

25.2 Each of MMC, MBGS, WAI, RPS and Golders has given and has not withdrawn its written consent to the inclusion in this Prospectus of its report which is set out in Section XIV: "Independent Technical Reports" and references to its names included herein in the form and context in which appears and has authorised the contents of those parts of this Prospectus which comprise its respective reports for the purposes of Rule 5.5.3R(2)(f) of the Prospectus Rules.

26 Disclaimers

26.1 Save as otherwise disclosed in this Prospectus, none of the Directors or the experts named in paragraph 25 above has any direct or indirect interest in the promotion of, or in, any assets which have been, within the two years immediately preceding the date of this Prospectus, acquired or disposed of by or leased to any member of the Glencore Group, or are proposed to be acquired or disposed of by or leased to any member of the Glencore Group, and none of the Directors is materially interested in any contract or arrangement subsisting at the date of this Prospectus which is significant in relation to the business of Glencore as a whole.

26.2 Save as otherwise disclosed in this Prospectus, none of the experts named in paragraph 25 above has any shareholding in any member of the Glencore Group or the right (whether legally

enforceable or not) to subscribe for or to nominate persons to subscribe for securities in any member of the Glencore Group or is an officer or servant or in employment of an officer or servant of Glencore.

27 Miscellaneous

27.1 There are no arrangements in existence under which future dividends are to be waived or agreed to be waived.

27.2 The information set out in this Prospectus that has been sourced from third parties has been accurately reproduced and, so far as the Company is aware and has been able to ascertain from that published information, no facts have been omitted which would render the reproduced information inaccurate or misleading. Where third party information has been used in this Prospectus, the source of such information has been identified.

27.3 The expenses of, and incidental to, the Global Offer and Admission payable by the Company, including the London Stock Exchange, the FSA and the Hong Kong Stock Exchange fees, professional fees, the costs of preparation, printing and distribution of documents and Swiss federal issuance stamp tax, are estimated to amount to approximately U.S.$434.6 million.

27.4 Save as otherwise disclosed in this Prospectus, as of 29 April 2011, the last practicable date prior to publication of the Prospectus, the Company did not have any outstanding material mortgages, charges, debentures, bank overdrafts or other similar indebtedness, hire purchase commitments, guarantees or other material contingent liabilities.

27.5 The Directors have been advised that no material liability for estate duty is likely to fall on the Company or any of its subsidiaries.

27.6 The Joint Sponsors have made an application on behalf of the Company to the FSA, the London Stock Exchange and the Listing Committee of the Hong Kong Stock Exchange for the listing of and permission to deal in the Ordinary Shares in issue and to be issued as mentioned in this Prospectus, including any Ordinary Shares that may be issued under the Over-Allotment Option. All necessary arrangements have been made to enable the Ordinary Shares to be admitted into CCASS.

27.7 There is no promoter of the Company.

27.8 The business address of each of the Directors is Baarermattstrasse 3, PO Box 777, CH-6341 Baar, Switzerland.

27.9 Penwith Limited, the Selling Shareholder, is selling all of the Sale Shares in the International Offer. The Selling Shareholder's business address is 13/14 Esplanade, St Helier, JE1 1BD Jersey.

28 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 are excepted) for the life of this Prospectus at the London office of Linklaters LLP at One Silk Street, London, EC2Y 8HQ:

(a) the Memorandum and Articles of Association of the Company;

(b) the reports from Deloitte LLP which are set out in Section VI: "Historical Financial Information" and Section VII: "Unaudited Pro Forma Financial Information";

(c) the mineral expert report of RPS Energy Limited which is set out in Sub-section A of Section XIV: "Independent Technical Reports" relating to the West African Oil Assets;

(d) the mineral expert report of Minarco-MineConsult Pty Ltd. and McElroy Bryan Geological Services Pty Ltd. which is set out in Sub-section B of Section XIV: "Independent Technical Reports" relating to Prodeco;

(e) the mineral expert reports of Golder Associates (Pty) Ltd. which are set out in Sub-sections C, D and E of Section XIV: "Independent Technical Reports" relating to Katanga, Mopani and Mutanda, respectively;

(f) the mineral expert report of Wardell Armstrong International Ltd. which is set out in Sub-section F of Section XIV: "Independent Technical Reports" relating to Kazzinc;

(g) the service contracts and letters of appointment referred to in paragraph 10 above;

(h) the material contracts referred to in paragraph 18 above;

(i) the letters of consent referred to in paragraph 25 above; and

(j) this Prospectus.

SECTION XI: U.S. PURCHASER'S LETTER

To: Glencore International plc
Baarermattstrasse 3
P.O. Box 777
CH-6341 Baar
Switzerland
(the "Company")

Citigroup Global Markets Inc.
388 Greenwich Street
New York, NY 10028

Credit Suisse (USA) LLC
11 Madison Avenue
New York, NY 10010

Credit Suisse Securities (Europe) Limited
One Cabot Square
London E14 4QJ

Morgan Stanley & Co. Inc.
1585 Broadway
New York, NY 10036

Morgan Stanley & Co. International plc
25 Cabot Square
London E14 4QA

Morgan Stanley Securities Limited
25 Cabot Square
London
E14 4QA

Exane, Inc.
640 5th Avenue
New York, NY 10019

Merrill Lynch, Pierce, Fenner & Smith Incorporated
One Bryant Park
New York, NY 10036

(collectively the "Banks")

Ladies and Gentlemen:

This letter (a "U.S. Purchaser's Letter") relates either to (a) the issuance of Ordinary Shares (the "Securities") of Glencore (the "Company") acquired in the Global Offer; (b) the acquisition of Securities from the Banks (or their affiliates); or (c) the subsequent transfer of such Securities. In any case, this letter is to be delivered on behalf of the person acquiring beneficial ownership of the Securities by the investor named below or the accounts listed on the attachment hereto (each an "Investor"). Unless otherwise stated, or the content otherwise requires, capitalised terms in this letter shall have the same meaning as is given to them in the prospectus relating to the offering of the Securities described therein published by the Company on 4 May 2011 (the "Prospectus").

The Investor agrees, acknowledges, represents and warrants, on its own behalf or on behalf of each account for which it is acting, that:

1. the Investor has received a copy of the Prospectus and understands and agrees that the Prospectus speaks only as of its date and that the information contained therein may not be correct or complete as of any time subsequent to that date;
2. the Investor is a "Qualified Institutional Buyer" ("Qualified Institutional Buyer") as defined in Rule 144A ("Rule 144A") under the U.S. Securities Act of 1933, as amended (the "U.S. Securities Act") and a "Qualified Purchaser" ("Qualified Purchaser") as defined in section 2(a)(51) and related rules of the U.S. Investment Company Act of 1940, as amended (the "U.S. Investment Company Act");
3. the Investor is not a broker-dealer which owns and invests on a discretionary basis less than U.S.$25 million in securities of unaffiliated issuers;

4. the Investor is not formed for the purpose of investing in the Company;
5. the Investor understands that the Company may receive a list of participants holding positions in its securities from one or more book-entry depositories;
6. the Investor is not subscribing to, or purchasing, the Securities with a view to, or for offer or sale in connection with, any distribution thereof (within the meaning of the U.S. Securities Act) that would be in violation of the securities laws of the United States or any state thereof;
7. the party signing this U.S. Purchaser's Letter is acquiring the Securities for its own account or for the account of one or more Investors (each of which is a Qualified Institutional Buyer and a Qualified Purchaser) on whose behalf the party signing this U.S. Purchaser's Letter is authorised to make the acknowledgments, representations and warranties, and enter into the agreements, contained in this U.S. Purchaser's Letter;
8. the Investor is not a participant-director employee plan, such as a plan described in subsection (a)(1)(i)(D), (E) or (F) of Rule 144A;
9. the Securities are being offered in a transaction not involving any public offering within the United States within the meaning of the U.S. Securities Act and that the Securities have not been and will not be registered under the U.S. Securities Act or with any securities regulatory authority of any state or other jurisdiction of the United States;
10. the Ordinary Shares (whether in physical, certificated form or in uncertificated form held in CREST) are "restricted securities" within the meaning of Rule 144(a)(3) under the U.S. Securities Act, the Ordinary Shares are being offered and sold in a transaction not involving any public offering in the U.S. within the meaning of the U.S. Securities Act and no representation is made as to the availability of the exemption provided by Rule 144 for resales of Ordinary Shares;
11. if in the future the Investor decides to offer, resell, pledge or otherwise transfer any Securities, such Securities will be offered, resold, transferred, assigned, pledged or otherwise disposed of only (i) outside the United States in an offshore transaction complying with the provisions of Regulation S under the U.S. Securities Act ("Regulation S") to a person outside the United States and not known by the transferor to be a U.S. Person, by prearrangement or otherwise and under circumstances which will not require the Company to register under the U.S. Investment Company Act, in each case in accordance with all applicable securities laws, upon surrender of the Securities and delivery to the Company of an Offshore Transaction Letter in the form of Annex I hereto (or in a form otherwise acceptable to the Company); or (ii) to the Company or a subsidiary thereof;
12. notwithstanding anything to the contrary in this letter, the Securities may not be deposited into any unrestricted depositary receipt facility in respect of the Company's securities, established or maintained by a depositary bank;
13. the Investor is knowledgeable, sophisticated and experienced in business and financial matters and it fully understands the limitations on ownership and transfer and the restrictions on sales of such securities;
14. the Investor is able to bear the economic risk of its investment in the Securities and is currently able to afford the complete loss of such investment and the Investor is aware that there are substantial risks incidental to the purchase of the Securities, including those summarised under "Risk Factors" in the Prospectus;
15. the Company has not been and will not be registered as an investment company under the U.S. Investment Company Act and the Company has elected to impose the transfer and selling restrictions with respect to persons in the United States and U.S. Persons described herein as contemplated by Section 3(c)7 of the U.S. Investment Company Act;
16. (i) the Company will not be required to accept for registration of transfer any Securities acquired by the Investor if such transfer is made in violation of the transfer restrictions set out in paragraph 11 above; (ii) the Company may require any U.S. person or any person within the United States who was not a Qualified Purchaser at the time it acquired any Securities or any beneficial interest therein to transfer the Securities or any such beneficial interest immediately in a manner consistent with the restrictions set forth in this U.S. Purchaser's Letter; and (iii) if the obligation to transfer is not met, the Company is irrevocably authorised, without any obligation, to transfer the Securities, as applicable, in a manner consistent with the restrictions set forth in this U.S. Purchaser's Letter and, if such Securities are sold, the Company shall be obliged to distribute the net proceeds to the entitled party;

17. the Investor became aware of the offering of the Securities by the Company and the Securities were offered to the Investor (i) solely by means of the Prospectus, (ii) by direct contact between the Investor and the Company or (iii) by direct contact between the Investor and one or more Banks. The Investor did not become aware of, nor were the Securities offered to the Investor by, any other means, including, in each case, by any form of general solicitation or general advertising, and in making the decision to purchase or subscribe to the Securities, the Investor relied solely on the information set forth in the Prospectus;
18. (i) none of the Banks or their affiliates have made or will make any representation or warranty as to the accuracy or completeness of the information in the Prospectus; (ii) the Investor has not relied and will not rely on any investigation by any Bank, its affiliates or any person acting on its or their behalf with respect to the Company, or the Securities; and (iii) none of the Banks or Glencore makes any representation as to the availability of an exemption from the U.S. Securities Act for the transfer of the Securities;
19. upon a proposed transfer of the Securities, the Investor will notify any purchaser of such Securities or the executing broker, as applicable, of any transfer restrictions that are applicable to the Securities being sold;
20. neither the Investor, nor any of the Investor's affiliates, nor any person acting on the Investor's or their behalf, will make any "directed selling efforts" as defined in Regulation S under the U.S. Securities Act in the United States with respect to the Securities;
21. any Ordinary Shares issued to the Investor in certificated form will bear an appropriate legend setting forth, among other things, the transfer restrictions applicable to the Ordinary Shares and the Investor understands that the legend shall not be removed from the Ordinary Shares, unless the Company agrees, in its sole discretion, to remove the legend;
22. each of the Banks, the Company and their respective affiliates are irrevocably authorised to produce this U.S. Purchaser's Letter or a copy hereof to any interested party in any administrative or legal proceeding or official inquiry with respect to the matters covered hereby; and
23. no agency of the United States or any state thereof has made any finding or determination as to the fairness of the terms of, or any recommendation or endorsement in respect of, the Securities.

The Investor hereby consents to the actions of each of the Banks, and hereby waives any and all claims, actions, liabilities, damages or demands it may have against either Bank in connection with any alleged conflict of interest arising from the engagement of each of the Banks with respect to the sale by the applicable Bank of the Securities to the Investor.

The Investor acknowledges that each of the Banks, the Company and their respective affiliates and others will rely on the acknowledgments, representations and warranties contained in this U.S. Purchaser's Letter as a basis for exemption of the sale of the Securities under the U.S. Securities Act, the U.S. Investment Company Act, under the securities laws of all applicable states and for other purposes. The party signing this U.S. Purchaser's Letter agrees to promptly notify the Company if any of the acknowledgments, representations or warranties set forth herein are no longer accurate.

This U.S. Purchaser's Letter shall be governed by and construed in accordance with the laws of the State of New York.

Where there are joint applicants, each must sign this U.S. Purchaser's Letter. Applications from a corporation must be signed by an authorised officer or be completed otherwise in accordance with such corporation's constitution (evidence of such authority may be required).

Very truly yours,

NAME OF PURCHASER:

By:

Name:

Title:

Address:

Date:

ANNEX I TO SECTION XI: OFFSHORE TRANSACTION LETTER

To: Glencore International plc
Queensway House
Hilgrove Street
St. Helier
Jersey JE1 1ES

Ladies and Gentlemen:

This letter (an "Offshore Transaction Letter") relates to the sale or other transfer by us of Ordinary Shares (the "Securities") of Glencore (the "Company") in an offshore transaction pursuant to Regulation S ("Regulation S") under the U.S. Securities Act of 1933, as amended (the "U.S. Securities Act").

Terms used in this Offshore Transaction Letter are used as defined in Regulation S, except as otherwise stated herein.

The undersigned acknowledges (or if the undersigned is acting for the account of another person, such person has confirmed that it acknowledges) that the Securities have not been and will not be registered under the U.S. Securities Act or with any securities regulatory authority of any state or other jurisdiction of the United States and that the Company has not registered as an investment company under the U.S. Investment Company Act of 1940, as amended (the "U.S. Investment Company Act").

The undersigned hereby certifies that:

1. The offer and sale of the Securities was not and will not be made to a person in the United States or to a person known by us to be a U.S. Person.
2. Either (a) at the time the buy order for the Securities was originated, the buyer was outside the United States or the undersigned and any person acting on the undersigned's behalf reasonably believed that the buyer was outside the United States, or (b) the transaction in the Securities was executed in, on or through the facilities of a designated offshore securities market as defined in Regulation S (including, for the avoidance of doubt, a *bona fide* sale on the London Stock Exchange's main market for listed securities or the Hong Kong Stock Exchange), and neither the undersigned nor any person acting on the undersigned's behalf knows that the transaction was pre-arranged with a buyer in the United States.
3. Neither the undersigned, nor any of the undersigned's affiliates, nor any person acting on the undersigned's or their behalf has made any directed selling efforts in the United States with respect to the Securities.
4. The proposed transfer of the Securities is not part of a plan or scheme to evade the registration requirements of the U.S. Securities Act or the U.S. Investment Company Act.
5. Neither the Company nor any of its agents participated in the sale of the Securities.
6. The undersigned confirms that, prior to the sale of the Securities, the undersigned notified the purchaser of such Securities or the executing broker, as applicable, of any transfer restrictions that are applicable to the Securities being sold.

This letter is governed by and shall be construed in accordance with the laws of the State of New York.

Where there are joint transferors, each must sign this Offshore Transaction Letter. An Offshore Transaction Letter of a corporation must be signed by an authorised officer or be completed otherwise in accordance with such corporation's constitution (evidence of such authority may be required).

The undersigned agrees that the Company and its agents and their respective affiliates may rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements.

Very truly yours,

NAME OF TRANSFEROR:

By:

Name:

Title:

Address:

Date:

The definitions set out below apply throughout this Prospectus, unless the context requires otherwise.

"**1C**", "**2C**", "**3C**", "**1P**", "**2P**" and "**3P**"	each has the meaning given to it in Appendix A to the PRMS;
"**Aabar**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Adjusted EBIT**"	has the meaning given to it in the section titled "Presentation of Information";
"**Adjusted EBITDA**"	has the meaning given to it in the section titled "Presentation of Information";
"**Adjusted EBIT pre-exceptional items**"	has the meaning given to it in the section titled "Presentation of Information";
"**Adjusted EBITDA pre-exceptional items**"	has the meaning given to it in the section titled "Presentation of Information";
"**ADM**"	means Archer Daniels Midland Company;
"**Admission**"	means UK Admission and HK Admission;
"**API**"	means the American Petroleum Institute;
"**Application Form**"	means the white, yellow and green application form(s), or, where the context so requires, any of them, relating to the Hong Kong Offer;
"**Articles**"	means the articles of association of the Company, which have been adopted conditional upon Admission;
"**AR Zinc**"	means AR Zinc SA, an entity in which Glencore has a 100 per cent. interest;
"**Atlas Petroleum**"	means Atlas Petroleum International Limited, an independent third party;
"**Banks**"	means the Joint Sponsors, the International Managers and the Hong Kong Managers;
"**bbls**"	means barrels;
"**bcf**"	means billion cubic feet;
"**BHP Billiton**"	means BHP Billiton Plc, an independent third party;
"**BlackRock**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**BlackRock Entities**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Blackthorn Resources**"	means Blackthorn Resources Limited, an entity in which Glencore has a 13 per cent. interest;
"**BNP Paribas**"	means BNP Paribas, whose registered office is at 16, boulevard des Italiens, 75009 Paris;
"**Board**"	means the board of Directors of the Company;
"**Bonus Award**"	has the meaning given to it in paragraph 14 of Section X: "Additional Information";
"**BP**"	means BP plc, an independent third party;
"**Brookside Capital**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";

"**Brookside Fund**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**bscf**"	means billions of standard cubic feet;
"**Bunge**"	means Bunge Limited, an independent third party;
"**capex**"	means capital expenditure;
"**CBOT**"	means Chicago Board of Trade;
"**CCASS**"	means the Central Clearing and Settlement System established and operated by HKSCC;
"**CCASS Operational Procedures**"	means the document which forms part of the General Rules of CCASS and sets out the operations of CCASS, the services and facilities available thereunder and the procedures to be followed by participants, as amended from time to time;
"**Century Aluminum**"	means Century Aluminum Company, an entity in which Glencore has a 44.0 per cent. interest;
"**Cerrejón**"	means Carbones del Cerrejón Limited;
"**Chemoil**"	means Chemoil Energy Limited, an entity in which Glencore has a 51.5 per cent. interest;
"**CIF**"	means cost, insurance and freight;
"**CIS**"	means the Commonwealth of Independent States, whose participant countries are certain former members of the Union of Soviet Socialist Republics;
"**Citi**"	means Citigroup Global Markets Limited (in its capacity as UK Sponsor) and/or Citigroup Global Markets U.K. Equity Limited (in its capacity as Joint Global Co-ordinator, Joint Bookrunner and International Manager), as the case may be;
"**Citi Asia**"	means Citigroup Global Markets Asia Limited;
"**City Code**"	means the City Code on Takeovers and Mergers;
"**Closing Date**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**CME**"	means Chicago Mercantile Exchange;
"**Cobar**"	means Cobar Management Pty Ltd., an entity in which Glencore has a 100 per cent. interest;
"**Code**"	means the UK Corporate Governance Code on the Principles of Good Governance and Code of Best Practice published in June 2010 by the Financial Reporting Council in the UK;
"**Colombian Coal Group**"	has the meaning set out in the definition of Prodeco in this Section XII;
"**Columbia Falls**"	means Columbia Falls Aluminum Company LLC, an entity in which Glencore has a 100 per cent. interest;
"**COMEX**" or "**NYMEX**"	means the Commodity Exchange division of the New York Mercantile Exchange;
"**Companies Ordinance**"	means the Companies Ordinance (Chapter 32 of the Laws of Hong Kong), as amended from time to time;
"**Company**"	means Glencore International plc;
"**Consolidated Financial Statements**"	means the consolidated financial statements included in Section VI: "Historical Financial Information";

"**Convertible Bonds**"	means the U.S.$2.3 billion guaranteed convertible bonds due 2014 issued by Glencore Finance (Europe) S.A., one of the financing vehicles in the Glencore Group;
"**Cornerstone Investment Agreements**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Cornerstone Investors**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Credit Suisse**"	means Credit Suisse Securities (Europe) Limited;
"**Credit Suisse Asia**"	means Credit Suisse (Hong Kong) Limited;
"**CREST**"	means the electronic, paperless transfer and settlement mechanism to facilitate the transfer of shares in uncertificated form operated by CRESTCo;
"**CRESTCo**"	means CRESTCo Limited, the operator (as defined in the Uncertificated Securities Regulations) of CREST;
"**CRU**"	means CRU International Limited;
"**DBP**"	means the Glencore Deferred Bonus Plan details of which are set out in paragraph 14 of Section X: "Additional Information";
"**Directors**"	means the Executive Directors and the Non-Executive Directors;
"**Disclosure and Transparency Rules**"	means the rules relating to the disclosure of information made in accordance with Section 73A(3) of the FSMA;
"**Dispose**" and "**Disposals**" shall be construed accordingly	means, in the context of paragraph 17.6 of Section X: "Additional Information", to directly or indirectly offer, sell, contract to sell, grant or sell options over, purchase any option or contract to sell, transfer, charge, pledge, grant any right or warrant to purchase or otherwise transfer, lend, or dispose of, directly or indirectly, Ordinary Shares or any securities convertible into or exercisable or exchangeable for Ordinary Shares or to enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of Ordinary Shares, whether any such transaction described above is to be settled by delivery of Ordinary Shares or such other securities, in cash or otherwise, or dispose or enter into any other agreement to dispose of Ordinary Shares or announce or otherwise publicise the intention to do any of the foregoing;
"**DMT**"	means dry metric tonnes;
"**DRC**"	means the Democratic Republic of Congo;
"**EEA**"	means the European Economic Area;
"**EHS**"	means environmental, health and safety;
"**Equatorial Guinea**"	means the Republic of Equatorial Guinea;
"**Eton Park**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Eton Park Funds**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**EU**"	means the European Union;
"**Executive Directors**"	means the executive directors of the Company, being Ivan Glasenberg and Steven Kalmin;

"**Existing Shareholders**"	means all holders of Ordinary Shares following completion of the Restructuring and immediately prior to Admission, excluding the Selling Shareholder;
"**Fidelity**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Fidelity Entities**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**FOB**"	means free on board;
"**FSA**"	means the Financial Services Authority;
"**FSMA**"	means the Financial Services and Markets Act 2000;
"**FTSE**"	means FTSE International Limited;
"**FTSE 100**"	means the FTSE 100 index;
"**Gécamines**"	means La Générale des Carrières et des Mines;
"**GIC**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Glencore**" or the "**Glencore Group**" or the "**Group**"	means Glencore International AG, and with effect from UK Admission, Glencore International plc and, in each case, their subsidiaries, any subsidiary thereof and "Glencore Group" shall be interpreted accordingly;
"**Glencore Deferred Bonus Plan**"	means the Glencore employee share plan, a description of which is set out in paragraph 14 of Section X: "Additional Information";
"**Glencore International**"	means Glencore International AG, a company incorporated in Switzerland that will become a wholly owned subsidiary of the Company at UK Admission;
"**Glencore International Purchase Agreement**"	means the agreement summarised in paragraph 18 of Section X: "Additional Information";
"**Glencore Performance Share Plan**"	means the Glencore employee share plan, a description of which is set out in paragraph 14 of Section X: "Additional Information";
"**Global Offer**"	means the opportunity to acquire Ordinary Shares being made available to institutional and certain other investors, as set out in Section VIII: "Details of the Global Offer";
"**Golders**"	means Golder Associates South Africa (Pty) Ltd.;
"**g/t**"	means grams per MT;
"**HK Admission**"	means the conditional approval of the Listing Committee of the Hong Kong Stock Exchange for the listing of and dealing in all of the Ordinary Shares on the Main Board of the Hong Kong Stock Exchange;
"**HK Joint Bookrunners**"	means BNP Paribas, Citi Asia, Credit Suisse Asia, Merrill Lynch Asia and Morgan Stanley Asia;
"**HKSCC**"	means the Hong Kong Securities Clearing Company Limited;
"**HK Sponsors**"	means Citi Asia and Morgan Stanley Asia;
"**HMRC**"	means HM Revenue & Customs;
"**Holdco**"	means the Company;
"**Hong Kong**"	means the Hong Kong Special Administrative Region of the PRC;

"**Hong Kong dollar**" or "**HK$**"	means the lawful currency of Hong Kong;
"**Hong Kong Listing Rules**"	means the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange;
"**Hong Kong Managers**"	means ABN AMRO Bank N.V., Banco Santander, S.A., Barclays Capital Asia Limited, BNP Paribas, BOCI Asia Limited, Citi Asia, Commerzbank Aktiengesellschaft, Crédit Agricole CIB Hong Kong Branch, Credit Suisse Asia, DBS Asia Capital Limited, The Hongkong and Shanghai Banking Corporation Limited, Merrill Lynch Asia, Mizuho Securities Asia Limited, Morgan Stanley Asia, The Royal Bank of Scotland N.V., Hong Kong Branch, Société Générale, Standard Chartered Securities (Hong Kong) Limited and UBS AG, Hong Kong Branch;
"**Hong Kong Offer**"	means the opportunity to subscribe for Hong Kong Offer Shares being available to the public and professional investors in Hong Kong (subject to adjustment) subject to and in accordance with the terms and conditions set out in this Prospectus and the Application Forms;
"**Hong Kong Offer Price**"	means the offer price to be paid (denominated in HK$) by Hong Kong retail investors;
"**Hong Kong Offer Shares**"	means the Ordinary Shares initially being made available pursuant to the Hong Kong Offer (subject to adjustment set out in Section VIII: "Details of the Global Offer");
"**Hong Kong Stock Exchange**" or "**HKSE**"	means The Stock Exchange of Hong Kong Limited;
"**IAS**"	means International Accounting Standards;
"**lb**"	means pound-mass;
"**ICE**"	means Intercontinental-Exchange, Inc.;
"**IEA**"	mean International Energy Agency;
"**IFRS**"	means International Financial Reporting Standards issued by the International Accounting Standards Board ("IASB") and adopted for use in the EU;
"**Informa**"	means Informa Plc;
"**International Joint Bookrunners**"	means BNP Paribas, Citi, Credit Suisse, Merrill Lynch and MSSL;
"**International Managers**"	means ABN AMRO Bank N.V., Banco Santander, S.A., Barclays Bank PLC, BNP Paribas, BOCI Asia Limited, Citi, Commerzbank Aktiengesellschaft, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., Crédit Agricole Corporate and Investment Bank, Credit Suisse, HSBC Bank plc, ING Bank N.V., Liberum Capital Limited, Merrill Lynch, Mizuho International plc, MSSL, Natixis, The Royal Bank of Scotland N.V. (London Branch), Sberbank of Russia, Société Générale, Standard Chartered Securities (Hong Kong) Limited and UBS Limited;
"**International Offer**"	means the opportunity to acquire International Offer Shares made available to institutional and certain other investors described in Section VIII: "Details of the Global Offer";
"**International Offer Shares**"	means the Ordinary Shares initially being made available pursuant to the International Offer;

"**Investment Company Act**"	means the U.S. Investment Company Act of 1940;
"**IPO**"	means initial public offering;
"**Jersey Companies Law**"	means the Companies (Jersey) Law 1991, as amended;
"**Jersey Takeover Law**"	means the Companies (Takeovers and Mergers Panel) (Jersey) Law 2009 and the Companies (Appointment of Takeovers and Mergers Panel) (Jersey) Order 2009;
"**Joint Bookrunners**"	the International Joint Bookrunners and the HK Joint Bookrunners;
"**Joint Global Co-ordinators**"	means Citi, Credit Suisse and Morgan Stanley;
"**Joint Sponsors**"	the UK Sponsors and the HK Sponsors;
"**JORC Code**"	means the 2004 Report of the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia;
"**Kansuki**"	means Kansuki Sprl, an entity in which Glencore has an interest;
"**Katanga**"	means Katanga Mining Limited, an entity in which Glencore has a 74.4 per cent. interest;
"**Katanga Report**"	means the technical report dated 4 May 2011 prepared by Golders in relation to the mineral reserves and mineral resources of Katanga set out in Section XIV: "Independent Technical Reports";
"**Kazzinc**"	means Kazzinc LLP, a limited liability partnership organised and incorporated under the laws of Kazakhstan;
"**Kazzinc Consideration Shares**"	has the meaning given to it in paragraph 18.12 of Section X: "Additional Information".
"**Kazzinc Report**"	means the technical report prepared by WAI in relation to the mineral reserves and mineral resources of Kazzinc set out in Section XIV: "Independent Technical Reports";
"**Kazzinc SPAs**"	has the meaning given to it in paragraph 18.12 of Section X: "Additional Information";
"**KT**"	means kilotons;
"**LBMA**"	means London Bullion Market Association;
"**LIBOR**"	means the London Interbank Offering Rate;
"**Listing Rules**"	means the Listing Rules made by the FSA under Part VI of the FSMA;
"**LME**"	means the London Metal Exchange;
"**Lock-Up Deeds**"	means the lock-up deeds entered into by the Existing Shareholders and the Executive Directors in favour of the Joint Global Co-ordinators and the Company in relation to the lock-up arrangements described in paragraph 17 of Section X: "Additional Information";
"**London Stock Exchange**"	means London Stock Exchange plc;
"**Los Quenuales**"	means Empresa Minera Los Quenuales SA, an entity in which Glencore has a 97.1 per cent. interest;
"**MATIF**"	means Marché à Terme International de France;
"**MBGS**"	means McElroy Bryan Geological Services Pty Ltd.;
"**Member State**"	means a member of the EEA;

"**MER**"	means mineral expert's report;
"**Merlin**"	means Merlin Trade & Consultancy Ltd;
"**Merrill Lynch**"	means Merrill Lynch International;
"**Merrill Lynch Asia**"	means Merrill Lynch Far East Limited;
"**Minara**"	means Minara Resources Ltd., an entity in which Glencore has a 70.6 per cent. interest;
"**MMC**"	means Minarco-MineConsult Pty Ltd.;
"**MMstb**"	means million stock tank barrels;
"**Moody's**"	means Moody's Investors Service Limited;
"**Mopani**"	means Mopani Copper Mines plc, an entity in which Glencore has a 73.1 per cent. interest;
"**Mopani Report**"	means the technical report dated 4 May 2011 prepared by Golders in relation to the mineral reserves and mineral resources of Mopani set out in Section XIV: "Independent Technical Reports";
"**Moreno**"	means Moreno Group, an entity in which Glencore has a 100 per cent. interest;
"**Morgan Stanley**"	means Morgan Stanley & Co. International plc;
"**Morgan Stanley Asia**"	means Morgan Stanley Asia Limited;
"**MSSL**"	means Morgan Stanley Securities Limited;
"**MT**"	means metric tonnes;
"**Murrin Murrin**"	means the joint venture between Minara Resources Ltd. and Glenmurrin Pty Ltd, in which Glencore has an indirect interest;
"**Mutanda**"	means Mutanda Ya Mukonkota Mining Sprl, an entity in which Glencore has a 40 per cent. interest;
"**Mutanda Report**"	means the technical report dated 4 May 2011 prepared by Golders in relation to the mineral reserves and mineral resources of Mutanda set out in Section XIV: "Independent Technical Reports";
"**NASDAQ**"	means the National Association of Securities Dealers Automated Quotations;
"**New Offer Shares**"	means the Ordinary Shares to be issued by the Company under the Global Offer;
"**Nikanor**"	means the company formerly known as Nikanor PLC;
"**Noble Group**"	means Noble Group Limited, an independent third party;
"**Noble Houston**"	means Noble Energy EG Limited, a subsidiary of Noble Energy, Inc., an independent third party;
"**NOCs**"	means national oil companies;
"**Non-Executive Directors**"	means the non-executive directors of the Company as set out in the table in Section II: "Directors and Corporate Governance";
"**Nyrstar**"	means Nyrstar NV, an entity in which Glencore has a 7.8 per cent. interest;
"**OAO RussNeft**"	means OAO NK "RussNeft";
"**Och-Ziff Funds**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";

"**Offer Price**"	means the price at which each Ordinary Share is to be issued or sold in the Global Offer, to be determined and as set out in the Pricing Statement;
"**Offer Price Range**"	means 480 pence to 580 pence;
"**Offer Shares**"	means the New Offer Shares and the Sale Shares;
"**Official List**"	means the Official List of the FSA;
"**Ordinary Shares**"	means ordinary shares of U.S.$0.01 each in the share capital of the Company;
"**Over-Allotment Option**"	means the over-allotment option granted by the Company to the Stabilising Manager for up to a maximum of 10 per cent. of the Offer Shares at the Offer Price, exercisable in whole or in part upon notice by the Stabilising Manager at any time on or before the 30th calendar day after the commencement of conditional dealings of the Ordinary Shares on the London Stock Exchange (or, in respect of Hong Kong, before such time in accordance with applicable laws and regulatory requirements);
"**Over-Allotment Shares**"	means the Ordinary Shares that are the subject of the Over-Allotment Option;
"**P10**"	means the value in a probabilistic distribution which corresponds to 10 per cent. cumulative exceedance probability;
"**P50**"	means the value in a probabilistic distribution which corresponds to 50 per cent. cumulative exceedance probability;
"**P90**"	means the value in a probabilistic distribution which corresponds to 90 per cent. cumulative exceedance probability;
"**Pacorini Group**"	means the group of metal warehousing companies acquired by Glencore in the third quarter of 2010, a group of companies in which Glencore has a 100 per cent. interest;
"**Pasar**"	means Philippine Associated Smelting & Refining Corporation, an entity in which Glencore has a 78.2 per cent. interest;
"**Pictet**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer";
"**Polymet**"	means Polymet Mining Corp., an entity in which Glencore has 9.3 per cent. interest;
"**Portovesme**"	means Portovesme srl, an entity in which Glencore has a 100 per cent. interest;
"**PRC**" or "**China**"	means the People's Republic of China but excluding, for the purpose of this document only, Hong Kong, the Macau Special Administrative Region of the PRC and Taiwan;
"**Price Determination Date**"	means the date, expected to be on or around 18 May 2011, on which the Offer Price is fixed for the purposes of the Global Offer;
"**Pricing Agreement**"	means the pricing agreement to be executed by the Underwriters, the Company and the Selling Shareholder immediately prior to the announcement of the Offer Price;
"**Pricing Statement**"	means the statement to be published by the Company detailing the Offer Price and related information;
"**PRMS**"	means the 2007 SPE/WPC/AAPG/SPEE Petroleum Resources Management System;

"**Prodeco**"	means Colombian Coal Group, comprising C.I. Prodeco SA, Consorcio Minero Unido SA, Carbones de la Jagua SA, Carbones El Tesoro SA and Puerto Nuevo SA, a group of companies in which Glencore has an interest;
"**Prodeco Report**"	means the technical report dated 4 May 2011 prepared by MMC and MBGS in relation to the mineral reserves and mineral resources of Prodeco (comprising the Calenturitas mine and the La Jagua complex) set out in Section XIV: "Independent Technical Reports";
"**Prospectus**" or "**Price Range "Prospectus**"	means this document relating to the Company and the Ordinary Shares, prepared by the Company in accordance with the Listing Rules, the Hong Kong Listing Rules, the Companies Ordinance and the Prospectus Rules;
"**Prospectus Directive**"	means Directive 2003/71/EC;
"**Prospectus Rules**"	means the Prospectus Rules published by the FSA under Section 73A of the FSMA;
"**PSP**"	means the Glencore Performance Share Plan details of which are set out in paragraph 14 of Section X: "Additional Information";
"**PSP Award**"	has the meaning given to it in paragraph 14 of Section X: "Additional Information";
"**QIBs**"	means qualified institutional buyers as defined in Rule 144A under the Securities Act;
"**QPs**"	has the meaning as defined in the Investment Company Act;
"**Qualifying Reserves**"	means Capital Contribution Reserves in terms of Swiss tax law and according to the Swiss GAAP financial statements as included in the notes to the annual financial statements. These are reserves from capital contributions made by shareholders to the Company after 31 December 1996, which can be repaid free of Swiss Withholding Tax;
"**Recylex**"	means Recylex SA, an entity in which Glencore has a 32.2 per cent. interest;
"**Regulation S**"	means Regulation S under the Securities Act;
"**Relationship Agreement**"	means the relationship agreement as further described in Section I: "Information on Glencore";
"**Restructuring**"	means the reorganisation of Glencore International's shareholding structure pursuant to which the Company will be inserted as the immediate holding company of Glencore International prior to Admission;
"**Rio Vermelho**"	means Rio Vermelho Acucar e Alcool SA, an entity in which Glencore has a 76 per cent. interest;
"**RPS**"	means RPS Energy Limited;
"**RPS Report**"	means the technical report prepared by RPS Energy Limited in relation to the West African Oil Assets as set out in Section XIV: "Independent Technical Reports";
"**Rule 144A**"	means Rule 144A under the Securities Act;
"**Sale Shares**"	means the Ordinary Shares sold to the Selling Shareholder prior to UK Admission which are being made available for sale by the Selling Shareholder as part of the Global Offer;

"**SAMREC**"	means the 2007 edition of the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves;
"**SDRT**"	means stamp duty reserve tax;
"**SEC**"	means the U.S. Securities and Exchange Commission;
"**Secondary Listing**"	means the admission of Ordinary Shares to secondary listing and trading on the HKSE pursuant to the Hong Kong Listing Rules;
"**Securities Act**"	means the U.S. Securities Act of 1933, as amended;
"**Selling Shareholder**"	means Penwith Limited, a company incorporated under the Jersey Companies Law for the purpose of aggregating the Sale Shares and selling them in the Global Offer;
"**SFC**"	means the Securities and Futures Commission of Hong Kong;
"**Shanduka Coal**"	means Shanduka Coal (Pty) Limited, an entity in which Glencore has a 70 per cent. interest;
"**Shareholders**"	means holders of Ordinary Shares;
"**Shell**"	means Royal Dutch Shell plc, an independent third party;
"**Sherwin Alumina**"	means Sherwin Alumina Company LLC, an entity in which Glencore has a 100 per cent. interest;
"**SHFE**"	means Shanghai Futures Exchange;
"**SHG**"	means special high grade;
"**Sinchi Wayra**"	means Sinchi Wayra SA, an entity in which Glencore has a 100 per cent. interest;
"**Singapore Stock Exchange**"	means Singapore Exchange Securities Trading Limited;
"**SIX**"	means SIX Swiss Exchange;
"**Stabilising Manager**"	means Morgan Stanley Securities Limited;
"**Standard & Poor's**"	means Standard & Poor's Ratings Services, a division of The McGraw-Hill Companies, Inc.;
"**ST Shipping**"	means ST Shipping & Transport Pte Ltd., an entity in which Glencore has a 100 per cent. interest;
"**Subscriber Shares**"	means the two ordinary shares issued on incorporation of the Company;
"**SXEW**"	means Solvent Extraction Electrowinning;
"**The West African Oil Assets**"	means Block O in Equatorial Guinea held by Glencore Exploration Ltd. and Block I in Equatorial Guinea and five other discoveries in these blocks (Carmen, Diega (A-sand), Diega (B-sand), Felicita and Yolanda) held by Glencore Exploration (EG) Ltd.;
"**Topley**"	means Topley Corporation, an entity in which Glencore has a 100 per cent. interest;
"**toz**"	means troy ounce;
"**UC Rusal**"	means United Company RUSAL Plc, an entity in which Glencore has a 8.75 per cent. interest;
"**UK**" or "**United Kingdom**"	means the United Kingdom of Great Britain and Northern Ireland;

"**UK Admission**"	means admission of the Ordinary Shares to the Official List and to the London Stock Exchange's main market for listed securities;
"**UK Companies Act 2006**"	means the Companies Act 2006 of England and Wales, as amended;
"**UK Sponsors**"	means Citi and Morgan Stanley;
"**Umcebo**"	means Umcebo Mining (Proprietary) Limited, an entity in which Glencore has agreed to acquire a 43.66 per cent. interest;
"**Uncertificated Securities Regulations**" or "**CREST Regulations**"	means the Uncertificated Securities Regulations 2001 (S.I. 2001 No. 3755) or the Companies (Uncertificated Securities) Jersey Order 1999 (as applicable);
"**Underwriters**"	means ABN AMRO Bank N.V., BNP Paribas, Banco Santander, S.A., Barclays Bank PLC, Barclays Capital Asia Limited, BOCI Asia Limited, Citi, Citi Asia, Commerzbank Aktiengesellschaft, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., Crédit Agricole Corporate and Investment Bank, Crédit Agricole CIB Hong Kong Branch, Credit Suisse, Credit Suisse Asia, DBS Asia Capital Limited, HSBC Bank plc, The Hongkong and Shanghai Banking Corporation Limited, ING Bank N.V., Liberum Capital Limited, Merrill Lynch, Merrill Lynch Asia, Mizuho International plc, Mizuho Securities Asia Limited, Morgan Stanley Asia, MSSL, Natixis, The Royal Bank of Scotland N.V. (London Branch), The Royal Bank of Scotland N.V., Hong Kong Branch, Société Générale, Standard Chartered Securities (Hong Kong) Limited, UBS Limited and UBS AG, Hong Kong Branch;
"**Underwriting Agreement**"	means the underwriting agreement dated 4 May 2011 relating to the Global Offer entered into by, amongst others, the Underwriters, the Company and the Selling Shareholder as set out in paragraph 16 of Section X: "Additional Information";
"**U.S.**"	means the United States of America;
"**U.S. Persons**"	means U.S. Persons as defined in Regulation S;
"**USDA**"	means the U.S. Department of Agriculture;
"**VaR**"	means value at risk;
"**VasGold**"	means Vasilkovskoje gold mine and concentrator;
"**VAT**"	means value added tax;
"**Verny**"	means Verny Investments together with Verny Rost, each an independent third party (but for its shareholding in Kazzinc);
"**Verny Capital**"	means JSC "Verny Capital" (registered in the Republic of Kazakhstan);
"**Verny Investments**"	means closed unit risk investment fund "Vernye Investitsii" (represented by Verny Capital, acting in the best interest of closed unit risk investment fund "Vernye Investitsii");
"**Verny Rost**"	means closed unit risk investment fund "Verny Rost" (represented by Verny Capital, acting in the best interest of closed unit risk investment fund "Vernye Rost");
"**Volcan**"	means Volcan Compañia Minera S.A.A., an entity in which Glencore has a 4.1 per cent. interest;
"**WAI**"	means Wardell Armstrong International Ltd.;

"**WGC**"	means World Gold Council;
"**White Form eIPO Service**"	means the facility for making an application for Hong Kong Offer Shares to be issued in or transferred into the investor's own name by submitting an application online through the designated website of the White Form eIPO Service Provider (being Computershare Hong Kong Investor Services Limited), www.eipo.com.hk;
"**Xstrata**"	means Xstrata plc and, where the context requires, its subsidiaries, subsidiary undertakings and associated undertakings, an entity in which Glencore has a 34.5 per cent. interest;
"**York Capital Funds**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer"; and
"**Zijin**"	has the meaning given to it in paragraph 10 of Section VIII: "Details of the Global Offer".

SECTION XIII: INFORMATION ON COMMODITIES

The following information relating to the industry overview has been provided for background purposes only. The information is either based on Directors' beliefs or has been extracted from a combination of data sourced from third party industry data providers and data released by public organisations including:

Third party industry data:

CRU International Limited	*Industry data relating to the Metals and Minerals business segment.*
Merlin Trade & Consultancy Ltd.	*Industry data relating to the Energy Products business segment (in particular in relation to coal).*
SSY Consultancy and Research	*Industry data relating to the Energy Products business segment.*
Informa Plc	*Industry data relating to the Agricultural Products business segment.*

Data released by public organisations:

World Gold Council (Metals and Minerals)	*Information was taken from the publicly available "Gold Demand Trends 2010" released 17 February 2011.*
International Energy Association (Energy Products)	*Information was taken from the publicly available "Oil Market Report" released 10 February 2011.*
BP plc (Energy Products)	*Information was taken from the publicly available "Statistical Review of World Energy 2010" released June 2010.*
U.S. Department of Agriculture (Agricultural Products)	*Information was taken from the publicly available "World Agricultural Supply and Demand Estimates" released 12 January 2011.*

The Company confirms that such third party information has been accurately reproduced and, as far as the Company is aware and is able to ascertain from information published by such sources, no facts have been omitted which would render the reproduced information inaccurate or misleading.

Metals and Minerals

Metals are typically classified into base metals (including non-ferrous base metals such as aluminium, copper, lead, nickel and zinc and ferrous base metals such as iron and ferroalloys) and precious metals (including gold, silver, platinum and palladium). Each metal is mined in the form of ore and subsequently processed into finished metal via specialised concentrating, smelting and refining techniques, before being sold to end users in a variety of industrial applications. The mining and processing of metals can take place within a vertically-integrated system or via multiple parties, each undertaking specific production steps. The extent of vertical integration differs between commodities.

Where ore is processed into finished metal by multiple parties, the transfers of intermediate products such as concentrate or blister that occur between parties may be direct or may involve marketers acting as intermediaries. Finished metals may be sold by producers directly to end users or via intermediaries.

Zinc/copper/lead and by-products

Copper

Copper is a base metal with desirable properties of malleability, high thermal and electrical conductivity, resistance to corrosion and strength, which make it attractive for use in electrical wiring and piping.

Copper ore is found in two commercially viable forms: sulphide ore and oxide ore. Sulphide ore is normally mined and processed into copper concentrate and is then smelted and refined into copper cathode (or metal) (99.99 per cent. copper). Oxide ore is mined and converted into copper cathode directly via a process known as Solvent Extraction Electrowinning ("SXEW"). Copper concentrate and copper metal are both traded products.

Copper metal is employed in a variety of end uses, with the construction and electric and electronic components sectors being key. Copper consumption can be divided into three main product groups: copper wire rod comprising wire and cable products, which is the key source of global primary

consumption; copper products such as plumbing, pipes, tubes, sheets, strips, rods, bars and sections; and copper alloy products including bronze (copper and tin) and brass (copper and zinc) products.

Copper is found throughout the world and, according to CRU, approximately 28 per cent. of global copper concentrate production in 2010 came from Chile, with China and Peru also being major producers of concentrates. According to CRU, China, Chile and Japan were the largest producers of copper metal globally in 2010. In 2010, according to CRU, global copper concentrate production in terms of contained copper totalled 12.4 million MT, whilst copper metal production totalled 18.7 million MT.

The Directors believe that Chinese consumption continues to be the key driver of copper metal demand, primarily due to industrial production and continued modernisation and investment in infrastructure. According to CRU, in 2010, China was the largest consumer of copper metal globally, accounting for approximately 39 per cent. of total global consumption, whilst the U.S. and Germany were also key consumers.

There are three exchanges where copper metal is traded: the LME, the SHFE and the COMEX/NYMEX. The Directors believe that copper is the second largest traded contract on the LME and prices established on the LME are used for reference globally throughout the industry; however, there are variances in regional supply and demand as well as differences in metal qualities. The exchanges have a network of approved warehouses around the world for use as a last resort, and the stock levels in these warehouses provide an important indicator of market tightness and overall demand. Based on the LME information the Directors believe that at the end of 2010, global closing copper metal stocks on the LME totalled 377k MT, down from 502k MT at the end of 2009.

Copper concentrate is a non-fungible product and cannot be directly traded on an exchange. Pricing of the metal equivalent within the concentrate is made with reference to the quoted exchange price for copper metal.

Zinc

Zinc ore is found in several different forms, although 95 per cent. of global mined zinc production is zinc blende (a zinc sulphide ore). Zinc ore is typically mined and processed into zinc concentrate and is then smelted and refined to produce zinc metal. Metal is produced in various refined product forms dependent upon consumer requirements. High grade metal is 99.95 per cent. zinc and SHG metal is 99.99 per cent. zinc. Zinc concentrate and zinc metal are both traded products.

The construction sector is the main end user of zinc metal, whilst the transport and infrastructure sectors are also significant end users. Zinc's main application is in the manufacture of galvanised steel, where a zinc coating is added to steel to protect against corrosion, increasing the performance and lifespan of steel products. Other applications include brass production (a zinc and copper alloy), die-casting and the manufacture of batteries.

According to CRU, zinc is found throughout the world, with approximately 29 per cent. of global zinc concentrate production coming from China, with Australia and Peru also being the significant contributors to global zinc concentrate production in 2010. According to CRU, China was also the largest producer of zinc metal in 2010, accounting for approximately 41 per cent. of global production. Further, according to CRU, in 2010, global zinc concentrate production in terms of contained zinc totalled 12.4 million MT, whilst zinc metal production totalled 12.7 million MT.

The Directors believe that Chinese demand remains the key driver of zinc metal demand due to the continued growth in the high zinc-consuming construction and transport sectors. For example, according to CRU, in 2010, China was by far the largest consumer of zinc metal globally, accounting for approximately 5 MT, or 42 per cent., of total global consumption, whilst the U.S. and Japan were also key consumers.

There are two exchanges on which zinc metal is traded: the LME and the SHFE. The prices established are used for reference globally throughout the industry; however, there are variances in regional supply and demand as well as differences in metal qualities. The LME has a network of approved warehouses around the world for use as a last resort and the stock levels in these warehouses provide an important indicator of market tightness and overall demand. Based on the LME information, the Directors believe that as at the end of 2010, global closing zinc metal stocks on the LME totalled 701k MT, up from 488k MT as at the end of 2009.

Zinc concentrate is a non-fungible product and cannot be directly traded on an exchange. Pricing of the metal equivalent within the concentrate is made with reference to the quoted LME cash price for zinc

metal, with the worldwide standard being 85 per cent., less a treatment charge which is tied to the zinc metal price. A price adjustment is also made for by-product metals contained in the concentrate.

Lead

Lead is amongst the most widely used metals in the world due to its electro-chemical properties, malleability, high density, low melting point, corrosion and weather resistance and ease of recycling.

The primary mined lead ore is galena, which is processed into lead concentrate and subsequently smelted and refined to produce lead metal (99.99 per cent. lead). Primary lead production is currently sourced almost entirely from polymetallic mines as a co-product or by-product. There are currently only two operational mines globally which are primarily lead mines.

In 2010, Glencore estimates that more than half of total global lead metal production was secondary or recycled lead. Glencore expects that secondary lead production as a proportion of total lead production will continue to increase steadily in the medium- to long-term. The supply of secondary lead is dependent upon the availability of feedstock sources, with the major source being scrap lead-acid batteries which have reached the end of their life cycle. According to CRU, recycling lead results in approximately 98 per cent. lead recovery from the scrap.

Metal is produced in various refined product forms, dependent upon consumer requirements. Producers tend also to produce zinc, with the production of the two commodities closely linked because of the fact that they are refined through the same metallurgical process. Lead concentrate and lead metal are both traded products.

The Directors believe that the vast majority of global lead metal consumption in 2010 was in the manufacture of lead-acid batteries. This is divided into Starting-Lighting-Ignition ("SLI") batteries mainly used in the automotive industry and industrial batteries which are sub-divided into stationary batteries (used in back-up power supplies) and traction batteries (used for motive power in certain equipment). Other non-battery uses include chemicals, cable sheathing, alloys and rolled lead sheet.

Lead is found throughout the world and according to CRU approximately 43 per cent. of global lead concentrate production in 2010 was from China, whilst Australia and the U.S. are also key lead mining countries. According to CRU, China was also by far the largest producer of lead metal, accounting for approximately 43 per cent. of global production. Further, according to CRU, in 2010, global lead concentrate production in terms of contained lead totalled 4.1 million MT, whilst lead metal production totalled 9 million MT.

Glencore believes that, Chinese demand, both for SLI and industrial batteries, is the key driver of lead metal consumption levels, and remained resilient even through the global economic downturn of 2008/09. In 2010, according to CRU, China was by far the largest consumer of lead metal globally, accounting for 3.9 million MT, or 43 per cent. of total consumption whilst the U.S. and Germany were also key consumers.

Lead metal is traded on the LME. The prices established are used for reference globally throughout the industry; however, there are variances in regional supply and demand as well as differences in metal qualities. The LME does not distinguish between primary and secondary lead. The LME has a network of approved warehouses around the world for use as a last resort, and the stock levels provide an important indicator of market tightness and overall demand. Based on the LME information, the Directors believe that, at the end of 2010, global closing lead metal stocks on the LME totalled 208k MT, up from 147k MT as at the end of 2009.

Lead concentrate is a non-fungible product and cannot be directly traded on an exchange. Pricing of the metal equivalent within the concentrate is made with reference to the quoted LME cash price for lead metal, with the worldwide standard being 95 per cent., less a treatment charge which is tied to the lead metal price. A price adjustment is also made for by-product metals contained in the concentrate.

Gold

Gold is a precious metal used both as an investment tool by central banks, governments, international financial institutions and retail investors and in jewellery. Gold is also used in fabrication activities, including electronics and dental applications. According to WGC, jewellery is the largest driver of gold demand, representing approximately half of total demand in 2010, of which a significant portion stemmed from India. Mining of gold ore is typically carried out by a small number of large integrated players that are also involved in its refining for industrial purposes.

There are three main sources of supply for gold: mining, recycled scrap and sales of gold held as reserves by central banks, governments and international financial institutions. Hedging by producers, based on their view of the gold price outlook, is also an important driver of the supply and demand balance. According to WGC, mine production accounted for close to two thirds of total supply in 2010 with recycled scrap representing the balance.

Gold is exchange traded and the benchmark price is fixed twice daily by the five fixing members of the LBMA.

Alumina/aluminium

Aluminium is one of the most abundant metallic elements on earth, although it does not exist in nature as a metal. Instead, it is found in the form of bauxite, which can be refined into alumina. Alumina can subsequently be smelted into aluminium. Aluminium is an attractive industrial metal due to its high strength-to-weight ratio, resistance to corrosion, conductivity and recyclability. Bauxite, alumina and aluminium are all traded products.

The key end user markets for aluminium are transportation, construction, and foil stock and packaging. Aluminium consumption can be divided into three main product groups: rolled products such as slabs, plates, sheet and foil; drawn products such as rod, bar, wire and cables; and extruded products.

Mining bauxite is a relatively simple operation and the cost of bauxite forms a small proportion of the total cost of aluminium production. Bauxite is then refined into alumina, an oxide of aluminium, and subsequently alumina is processed into aluminium in an electrolytic smelter. The main costs of smelting aluminium are alumina, power, labour and other raw materials (lime, caustic soda and carbon pitch). The cost of production relative to the cost of freight tends to favour the processing of alumina close to the source of bauxite and the processing of aluminium close to a source of low-cost power. Aluminium is also recycled as a secondary metal from scrap. Typically, four to five MT of bauxite are used to produce two MT of alumina, and two MT of alumina are required to produce one MT of aluminium.

According to CRU, in 2010, global alumina (metallurgical grade) production totalled 81.6 million MT with China, Australia and Brazil being the largest producers. According to CRU, global aluminium production totalled 42 million MT with China, Russia and Canada being the key producers. Further, according to CRU, China produced approximately 36 per cent. of alumina (metallurgical grade) and 40 per cent. of aluminium globally in 2010. China benefits from low capex and short lead times for smelter development, though its aluminium is typically produced at a significantly higher cash cost due to limited access to low cost energy.

The Directors believe that Chinese demand continues to be the key driver of consumption, primarily due to industrial production and continued modernisation and investment in infrastructure. For example, according to CRU, in 2010, China was the largest consumer of aluminium globally, accounting for approximately 41 per cent. of total global consumption.

There are two primary exchanges on which aluminium is traded: the LME and the SHFE. Aluminium that is traded as a commodity generally must meet very specific criteria, principally purity of at least 99.7 per cent. As a result, commoditised aluminium tends to trade at a relatively consistent price between markets. The exchanges have a network of warehouses around the world and the stock levels in these warehouses provide an important indicator of market tightness and overall demand. Based on the LME information, the Directors believe that, at the end of 2010, global closing aluminium metal stocks on the LME totalled 4.3 million MT, down from 4.6 million MT at the end of 2009.

Historically, the price of alumina has been fixed to long-term contracts, which are generally priced by reference to a certain percentage of the LME aluminium price. Since the primary use of alumina is as an input into aluminium production, the two commodities are broadly correlated. In August 2010, Platts launched the first spot-price alumina index with certain major producers beginning to sell some production of alumina on contracts tied to a price index, indicating a movement toward a spot pricing system.

Ferroalloys/nickel/cobalt/iron ore

Nickel

Nickel is a base metal used primarily in the manufacture of stainless steel and other alloys due to its resistance to corrosion, strength and heat resistant properties. Nickel is also used in the production of coinage, batteries, plating, catalysts and fuel cells.

Nickel is found in two commercially viable forms, laterites (oxide ores) and pentlandites (sulphide ores). The Directors believe that, in 2010, approximately half of mined production was from each form. Nickel ore is processed into nickel concentrate, which is then smelted and refined to produce nickel metal containing 99.99 per cent. nickel, once purified through the Mond process[(1)], hydrometallurgical techniques (leaching), electrowinning. Oxide ores can be leached directly, whereas sulphide ores must first be treated with bacteria to make them amenable to leaching. Metal is the form in which nickel is supplied to end user markets and is traded by nickel producing companies. Nickel metal is produced in various refined product forms, dependent upon consumer requirements.

The key end use for primary nickel production is in stainless steel production. There are several grades of stainless steel, each of which has different properties and alloy content. These can be split into two main groups – austenitic (70 to 75 per cent. of total stainless steel production, of which the 300-series contains 8 to 10 per cent. nickel and the 200-series contains 2 to 4 per cent. nickel) and ferretic/martensitic (25-30 per cent. of total stainless steel production containing no nickel).

Nickel is found throughout the world and according to CRU, the largest global producers of finished nickel[(2)] in 2010 were China, Russia and Japan. According to CRU, global finished nickel production in 2010 totalled 1.4 million MT.

The nickel industry is relatively consolidated and as a result the processing of nickel ore from mined ore to nickel metal and the subsequent sale to end users usually takes place within a vertically-integrated system. However, there are still some specialised market participants, undertaking discrete processing steps in the nickel value chain, between which transfers may be direct or may involve an intermediary.

Glencore believes that nickel demand is primarily driven by the expansion of the Chinese and Indian stainless steel industries and re-stocking in industrial sectors. For example, according to CRU, in 2010, China was the largest consumer of finished nickel globally, accounting for approximately 40 per cent. of the total 1.5 million MT consumed globally, whilst Japan and the U.S. were also key consumers.

Nickel metal is traded on the LME. The prices established are used for reference globally throughout the industry; however, there are variances in regional supply and demand as well as differences in metal qualities. LME nickel contracts specify the purity (99.80 per cent. minimum), tonnage and form/shape (full plate cathode, cut cathode, pellets, briquettes), after which a price is determined based on the prevailing demand and LME stock levels. The LME has a network of approved warehouses around the world for use as a last resort and the stock levels provide an important indicator of market tightness and overall demand. Based on the LME information, the Directors believe that, as at the end of 2010, global closing nickel metal stocks on the LME totalled 137k MT, down from 158k MT as at the end of 2009.

Typically, the contracts covering nickel ore supplies are based on a percentage of the LME nickel price, depending on the nickel grade, and quoted on an FOB basis.

Chrome and ferrochrome

Chrome is another key alloying element used in bulk quantities for the production of stainless steel. Chrome's most important property in the context of its industrial application is its ability to form a regenerative oxide film, protecting a metal surface against oxidation, corrosion and wear. Stainless steel contains a minimum of 10.5 per cent. chrome.

Ferrochrome is an alloy of chrome and iron. Global ferrochrome production accounts for the vast majority of chrome ore demand. A significant majority of ferrochrome production is then in turn used in the production of stainless steel and alloy steel. Glencore believes that rapid growth in stainless steel production in China and India in recent years has driven an increase in demand for ferrochrome. According to CRU, in 2010, approximately 9.1 million MT of ferrochrome by gross weight was produced globally.

The ferrochrome market is largely a negotiated market with price and volume agreed on a quarterly basis, typically under long-term contracts of one to five years. In the U.S., prices tend to follow those published in either of the two major industry journals, *Ryan's Notes* and *Metals Week*.

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(1) In this process, nickel is reacted with carbon monoxide to form nickel carbonyl, which is then passed at a high temperature into a chamber, causing the nickel carbonyl to decompose and form pure nickel in pellet or powder form.

(2) Finished nickel includes nickel metal and nickel metal substitutes such as ferronickel, nickel pig iron and nickel oxide sinter.

Cobalt

Cobalt is used primarily in superalloys, including in the manufacture of parts for turbines and aero engines, given its temperature stability and its corrosion and wear resistance. Other applications include magnets, diamond tools and catalysts, as well as in a variety of chemical applications.

Cobalt is commonly found as a by-product of nickel and, to a lesser extent, copper, meaning production tends to increase or decrease in line with production of these metals. According to CRU, in 2010, approximately 77k MT of cobalt was produced globally, with the Katanga province in the DRC being the key producer of mined cobalt.

Cobalt has been traded on the LME since February 2010 and is classified as a minor metal.

Iron ore

Iron is the fourth most abundant rock-forming element and composes about 5 per cent. of the Earth's crust. The principal ore minerals of iron are hematite, magnetite, siderite, and goethite. An estimated 98 per cent. of the ore shipped in the world is consumed in the manufacture of iron and steel. The remaining 2 per cent. is used in the manufacture of cement, heavy-medium materials, pigments, ballast, agricultural products or specialty chemicals. As a result, demand for iron ore is tied directly to the production of raw steel and the availability of high-quality ferrous scrap.

Mining iron ore is a high volume, low margin business, as the value of iron is significantly lower than base metals. It is highly capital intensive, requiring significant investment in infrastructure such as rail in order to transport the ore from the mine to a freight ship. For these reasons, iron ore production is concentrated in the hands of a few major players which enjoy significant economies of scale.

The Directors believe that, in 2010, the vast majority of global trade in iron ore was seaborne trade. The two major exporters are Australia and Brazil while the largest importers during 2010 were China followed by Europe and Japan.

Energy Products

Energy products are hydrocarbons sourced from the organic remains of prehistoric organisms or vegetable matter. The main energy products include coal, coke, oil and natural gas.

Coal

Coal is the most widely available and well-distributed fossil fuel in the world. According to Merlin, coal is the second largest primary source of energy after crude oil in consumption terms, and the largest in terms of reserves. Global consumption of coal is forecast to increase significantly between 2010 and 2020.

Coal is mined using two techniques: surface mining which is sometimes referred to as open cast mining, and underground or deep mining. The most appropriate mining technique is largely determined by the geology of the coal deposit. Once raw coal is mined, it is often crushed, sized and washed in processing plants where the product consistency and energy content of the coal is improved. Washing is a process where the denser mineral matter in coal is separated from the main carbon rich component of coal.

Coal is classified into four general categories, or rank: lignite, sub-bituminous, bituminous and anthracite, reflecting the progressive response of the coal to increasing heat and pressure and the time of its formation. Lignite and sub-bituminous coals are commonly referred to as "low-rank" coals, while bituminous and anthracite coals are commonly referred to as "hard" coals. Energy content and sulphur content are among the most important characteristics for coal classification—certainly for steam (or thermal) coal used for energy generation—and help to determine the best use of a particular type of coal, as well as helping determine the price of different qualities of coal. Other important characteristics include moisture, ash and nitrogen content. Bituminous coal represents approximately half of world reserves and can be further classified as either "thermal coal" or "metallurgical coal". Thermal coal, also known as "steam coal" or "energy coal", used in electricity generation and other energy-raising processes, according to Merlin, represented approximately 85 per cent. of the 5.4 billion tonnes of total global coal production in 2010. Metallurgical coal (which refers to all coals used in the steel industry, including "coking coal" used to produce coke and PCI (Pulverised Coal Injection) coals which are injected into the base of a blast furnace to make iron), accounts for most of the balance of production.

Coke is a material derived from the destructive distillation (“coking/carbonisation”) of coking coal. Coke’s main uses are as a fuel and a reducing agent in smelting iron ore in blast furnaces. This process takes place in coke ovens which are likely to be located close to iron- and steel-making plants rather than geographically proximate to coal mines.

According to Merlin, approximately 90 per cent. of proven global coal reserves are found in just eight countries, including the U.S., Russia, China, Australia and India.

According to Merlin, in 2010, global thermal coal production totalled 4.6 billion tonnes, with China being the largest thermal coal producer globally, accounting for approximately 47 per cent. of global thermal coal production, followed by the U.S. and Australia. The majority of thermal coal produced is consumed in the country of production due to its relatively widespread availability and high transportation costs relative to its energy value and price. In 2010, China was also by far the largest producer of coking coal globally, accounting for approximately 57 per cent. of the 0.8 billion tonnes produced (according to Merlin). In 2010, the total global production of coke was 0.6 billion tonnes (according to Merlin).

Of the limited export volumes, the vast majority is seaborne coal. According to Merlin, the two major seaborne thermal coal markets are the Atlantic region and the Asia-Pacific region. European countries and the U.S. are the key importers of thermal coal in the Atlantic region with the key suppliers being South Africa, Russia and Colombia. In the Asia-Pacific region, the key importers are Japan, South Korea, China and Taiwan and the key exporters are Indonesia and Australia (according to Merlin). For some time Australia has been the largest coal exporter globally along with the U.S., Indonesia, Russia, South Africa and China. However, increasing domestic electricity demand in the latter country has resulted in stronger domestic consumption, with China becoming a net coal importer in 2009 (according to Merlin). India is rapidly becoming an important coal importer receiving coal from both South African and Asia-Pacific suppliers (according to Merlin).

Unit ocean freight costs are a significant component of the price of seaborne export coal and coke. Participants in the coal and coke seaborne export markets either own vessels or lease freight on a “spot charter” or “time charter” basis. According to the shipping brokers Simpson Spence and Young, in 2010, the global seaborne dry bulk trade across all commodities was 3.3 billion tonnes, of which 0.9 billion tonnes was thermal and coking coal; a further 1 billion tonnes was iron ore. The global seaborne dry bulk trade is forecast to increase to 4.5 billion tonnes by 2015 across all commodities (according to Simpson Spence and Young).

Global coal demand is subject to a number of drivers, including primary energy consumption, the decommissioning and construction of new coal-fired power plants, the competitiveness of coal versus alternative energy sources and the regulatory environment, including carbon emission constraints in several countries. Increasing imports into China and India reflect their increasing demand, primarily due to increased electricity and steel production, as well as the higher quality of internationally-traded coals compared to India’s and China’s own domestic production. According to Merlin, in 2010, China was the largest consumer of thermal coal globally, accounting for almost half of total consumption.

Thermal coal is sold under term contracts or on the spot market. It is priced primarily on calorific value and sulphur content. Seaborne coal prices in each market normally fluctuate with changes in supply and demand, production and transportation costs, availability and prices of substitute fuels, general economic conditions, government regulation and weather. Price settlement between Asian power companies and Australian coal producers have typically acted as benchmarks for pricing in the Asia-Pacific coal market and have been used as a reference point in the Atlantic market.

Price indices are used by market participants to monitor spot prices in various geographic regions. The API#4 index is the benchmark price reference for coal exported out of South Africa’s Richards Bay Coal Terminal. In Europe, export market prices are reflected in the API#2 index for coals delivered into the “ARA” (harbours of Amsterdam, Rotterdam and Antwerp) region on a CIF basis. The API#2 index is reflective of prices in the Atlantic market, while API#4 reflects market conditions in both the Atlantic and Asian (mainly Indian) markets. In Australia, the API#6, GlobalCOAL’s NEWC contract and the Barlow Jonker Index are indicators of the spot price of thermal coal loaded FOB vessel at the port of Newcastle, Australia.

There are four future exchanges where internationally-traded coal qualities are traded: in Chicago, the CME; in Singapore, SGX and in London, ICE and LCH. However, a majority of coal trading is conducted off-exchange through brokers operating bilateral contracts and through the API swap market, which has trading volumes that exceed the physical underlying market.

Oil

Crude oil is not a homogenous material, but rather is classified by its density (light to heavy) and sulphur content (sweet to sour). Light sweet crude oils are typically more expensive than heavy sour crude oils because they require less treatment to produce refined products.

The process of transforming crude oil into refined products typically involves multiple steps, including distillation, chemical processing and removal of unwanted elements and compounds. Crude oil is processed into a large number of refined oil products including petroleum gases, petrochemicals, gasoline, naphtha, mid-distillates, fuel oil, residual fuels, petroleum coke and niche refined petroleum products.

The extraction of crude oil and its processing into refined oil products can be performed by vertically-integrated companies or by players specialised in each segment of the oil value chain: in the latter scenario, transfers between specialised parties may be direct or may involve an intermediary.

Within the oil value chain, an important role is played by oil freight, which consists of the transportation of crude oil to refineries and refined products to distribution terminals. A key step of this process involves shipping in tankers, the cost of which has an important impact on the price of oil and oil products. Participants in the oil value chain often own tankers and, in addition, there is a market for tanker capacity which is sold on both a "spot charter" and "time charter" basis.

In 2010, global oil demand totalled an average of approximately 87.8 million bbls per day (according to IEA). Glencore believes that oil demand is largely driven by GDP growth. The main uses of oil products are transportation, power generation and heating. Non-OECD countries accounted for approximately half of oil consumption in 2010, and have shown uninterrupted demand growth for several years, even through the global economic downturn of 2008/09 (according to IEA).

World oil supply, which amounted to an average of approximately 87.3 million bbls per day in 2010, can be split into the Organisation of Petroleum Exporting Countries ("OPEC") and Non-OPEC (according to IEA). OPEC nations supplied approximately 40 per cent. of the world's oil supply in 2010 (according to IEA) and controlled approximately three quarters of the world's known reserves at the end of 2010 (according to BP).

The trading of crude oil and oil products consists of direct physical trading and derivatives trading. Participants in the trading of crude oil and refined oil products markets include both physical traders, who handle physical commodity deliveries, and financial traders, who generally settle contracts in cash. Physical traders gain competitive advantages through the optionality offered by trading large physical volumes and the insight into market fundamentals that physical presence provides; financial traders gain competitive advantage through sophisticated research and superior quantitative analytics underpinning complex derivatives structure.

Price of benchmark crude oils such as West Texas Intermediate Crude and Brent Crude is dependent on supply and demand fundamentals; at the end of 2010, closing WTI and Brent spot prices were U.S.$91.38 per bbl and U.S.$94.75 per bbl, respectively. Other crude oils are usually priced at a premium/discount to those benchmarks to reflect differentials in terms of density, sulphur content and location.

Agricultural Products

The agriculture industry includes the farming, processing, movement and storage of crops and products used primarily as food, animal feed or biofuel. The main product groups in which Glencore is active include grains, oilseeds, sugar, cotton and biofuels.

Grains have end uses both in human and livestock consumption and in the production of bioethanol, a substitute for gasoline. Grains for human and livestock consumption are generally milled before reaching end users. Wheat, barley and corn are three of the key grain crops. Oilseeds typically undergo crushing and refining to render them into various types of oils and meals for human consumption and animal feed. Rapeseed, soybean, sunflower and palm are key oilseed crops. Oil contained in these crops is also used to produce biodiesel. Cotton, although primarily used for textile and clothing manufacture, also provides edible oil and seed by-products for livestock feed; about two thirds of the harvested crop is composed of the seed. Sugar-based food crops, such as sugar cane and sugar beet, are used in both the food industry and bioethanol production.

Agricultural production is characterised by a very large number of small players. Even the largest farming players typically only have a fraction of the overall market share in any given country. Agricultural supply primarily evolves as a function of the crop price environment, weather conditions and availability of

croppable area. Higher prices serve as an incentive for farmers to increase production levels, as occurred in 2008 and 2009. However, concentration in processing is higher for many crops, with large integrated players enjoying economies of scale. Processing is typically carried out close to the origin.

Production of some crops is concentrated in a limited number of countries, such as the U.S., EU and Canada for wheat and the U.S., Argentina and Brazil for corn, while demand may come from all over the world. This makes trading and logistics an important component of the industry value chain. Freight, logistics and storage services are offered both for raw and processed products. Key components of these services include procurement, ocean freight and distribution.

In crop year 2009/2010, EU-27 countries were the largest producers of both wheat and barley, with 138 million MT and 62 million MT of production, respectively (according to Informa). However, according to USDA, only a small portion of this translated into exports due to the large domestic demand for own production. In the same crop year, the U.S. were the single largest producer and exporter of corn and also led other countries in soybean production and exports followed by Brazil and Argentina (according to Informa). Also in crop year 2009/2010, Brazil was the largest producer and exporter of sugar with 36k MT of production and 24k MT of exports in 2010 (according to USDA). The U.S. is the single largest exporter of cotton, with 12 million 480 lb. bales of exports in crop year 2009/2010, while China is the largest producer and importer owing to its leading position in the textile industry (according to USDA).

According to USDA, income growth and population growth are two primary drivers behind demand for food. Increasing income per capita, especially in emerging countries, typically leads consumers to move away from staple and traditional food towards diets that are richer in protein. The resulting increase in livestock production boosts animal feed demand. Also contributing to the global demand in recent years has been the growing use of crops for biofuel production. A relatively expensive source of energy *per se*, biofuel is subject to government subsidies in most countries and the demand for biofuels grew even throughout the global economic downturn of 2008/09.

According to Informa, certain Middle Eastern and Asian countries were among the largest importers of selected agricultural products in the crop year 2009/2010, mainly due to their fast economic growth and the lack of climatic and agronomic conditions necessary for the production of crops. China was the single largest importer of soybeans, with 51 million MT of imports, while Saudi Arabia was the single largest importer of barley with 7 million MT, due to the high demand for livestock fodder (according to Informa).

In addition to supply/demand dynamics, global agricultural trades are also influenced by a number of exogenous factors such as weather conditions, changing government regulations, foreign exchange rates and other macroeconomic factors such as energy prices.

Wheat, corn, soybean, soyoil, soymeal, barley, rapeseed and sugar are exchange-traded commodities. The main agricultural commodities exchanges include CME (Chicago), NYSE Euronext, Tokyo Grain Exchange ("TGE"), Singapore Mercantile Exchange ("SMX") and the Australian Securities Exchange. Sunflower seed products and biodiesel are not exchange traded. Prices of these commodities are determined by reference to prices of exchange-traded commodities, among other factors.

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4 May 2011

VALUATION OF PETROLEUM ASSETS IN BLOCKS O AND I, OFFSHORE EQUATORIAL GUINEA

In response to Glencore International AG's request of September 2010 and the Letter of Engagement dated 3rd December 2010 with Glencore International AG, RPS Energy Consultants Limited ("RPS") has completed an independent valuation of liquid hydrocarbons in Blocks O and I, offshore Equatorial Guinea (the "Properties") in which Glencore Exploration Limited and Glencore Exploration (EG) Limited respectively (collectively "Glencore") have an interest. The blocks are operated by Noble Energy EG Limited ("Noble", the "Operator").

The information contained in this section is issued by RPS at the request of Glencore International AG as part of the work detailed in the Letter of Engagement made on 3 December 2010 and is subject to the terms and conditions contained therein. This report has been prepared for the specific purpose of inclusion in the prospectus relating to the global offer. This report accords with the requirements set out in the United Kingdom Financial Services Authority's Prospectus Rules and has been prepared having regard to the recommendations for the consistent implementation of the European Commission's Regulation on Prospectuses No. 890/2004 (the European Securities and Markets Authority's ("ESMA") recommendations published by the Committee of European Securities Regulators (now the ESMA) as updated on 23 March 2011 following the publication of a consultation paper in April 2010 in relation to content of prospectuses regarding mineral companies.

The RPS work contained in this section is based on data and information available up to 30th September, 2010. An effective date of December 31st 2010 has been assumed for the valuation.

Both hydrocarbon liquids and gas are present in the discoveries in Blocks O and I and both phases are expected to be present in any future discoveries. The review of in-place hydrocarbon volumes includes both liquids and gas. However, in view of the immaturity of plans to monetise hydrocarbon gas from Equatorial Guinea waters the valuation presented herein was limited to the value of the liquids (both crude oil and condensate).

Where discoveries or prospects straddle the block boundary, RPS has assumed the same equity split as the Operator. These do not represent RPS' opinion on the relative prospects in each block.

The work has been performed by an RPS team of professional petroleum engineers, geoscientists and economists and is based on the Operator's data, supplied through Glencore. All Reserves and Resources definitions and estimates shown in this section are based on the 2007 SPE/AAPG/WPC/SPEE Petroleum Resource Management System ("PRMS").

Our approach has been to review the Operator's technical interpretation of their base case geoscience and engineering data for the field for reasonableness and to review the ranges of uncertainty for each parameter around this base case in order to estimate a range of petroleum initially in place and recoverable. For the prospects, Glencore's technical interpretation of geoscience data was reviewed.

QUALIFICATIONS

RPS is an independent consultancy specialising in petroleum reservoir evaluation and economic analysis. The provision of professional services has been solely on a fee basis. Mr Gordon Taylor, Director, Geoscience for RPS Energy, has supervised the evaluation. Mr Taylor is a Chartered Geologist and Chartered Engineer with over 30 years experience in upstream oil and gas.

Other RPS employees involved in this work hold at least a Masters degree in geology, geophysics, petroleum engineering or a related subject or have at least five years of relevant experience in the practice of geology, geophysics or petroleum engineering.

BASIS OF OPINION

The results presented herein reflects our informed judgement based on accepted standards of professional investigation, but is subject to generally recognised uncertainties associated with the interpretation of geological, geophysical and engineering data. The Work has been conducted within our understanding of petroleum legislation, taxation and other regulations that currently apply to these interests. However, RPS is not in a position to attest to the property title, financial interest relationships or encumbrances related to the properties.

Our estimates of resources and value are based on the data set available to, and provided by Glencore. We have accepted, without independent verification, the accuracy and completeness of these data.

As the offshore fields are yet to be developed and there are no facilities in place on the blocks to date, a site visit was not deemed necessary.

The information in this section represents RPS' best professional judgement and should not be considered a guarantee or prediction of results. It should be understood that any evaluation, particularly one involving exploration and future petroleum developments, may be subject to significant variations over short periods of time as new information becomes available. As agreed in the Letter of Engagement, RPS cannot and does not guarantee the accuracy or correctness of any interpretation made by it. In particular, RPS does not warrant that the work will be any form of guarantee of geological or commercial outcome.

The information in this section relates specifically and solely to the subject assets and is conditional upon various assumptions a summary of which is included herein. Except with permission from RPS, the information in this section may not be reproduced or redistributed, in whole or in part, to any other person than the addressees or published, in whole or in part, for any purpose without the express written consent of RPS. In instances where excerpts only are to be reproduced or published, other than in relation to the circular and prospectus in connection with an initial public offering this cannot be done without the express permission of RPS.

RPS has given and not withdrawn its written consent to the issue of this prospectus, with its name included within it, and to the inclusion of this information and references to the information in this section in the prospectus. For the purposes of Prospectus Rule 5.5.3R(2)(f) RPS accepts responsibility for the information contained in this section set out in this section of the prospectus and those sections of the prospectus which include references to the information in this section and declares that to the best knowledge and belief of RPS, having taken all reasonable care to ensure that such is the case, the information contained herein is in accordance with the facts and does not omit anything likely to affect the import of such information

Yours faithfully,

RPS Energy

Gordon R Taylor, *CEng, CGeol*
Director, Geoscience

SPE/WPC/AAPG/SPEE RESERVE/RESOURCE DEFINITIONS

The following is extracted from the SPE/WPC/AAPG/SPEE PRMS 2007 using the section numbering and spelling from PRMS.

1.0 Basic Principles and Definitions

The estimation of petroleum resource quantities involves the interpretation of volumes and values that have an inherent degree of uncertainty. These quantities are associated with development projects at various stages of design and implementation. Use of a consistent classification system enhances comparisons between projects, groups of projects, and total company portfolios according to forecast production profiles and recoveries. Such a system must consider both technical and commercial factors that impact the project's economic feasibility, its productive life, and its related cash flows.

1.1 Petroleum Resources Classification Framework

Petroleum is defined as a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid, or solid phase. Petroleum may also contain non-hydrocarbons, common examples of which are carbon dioxide, nitrogen, hydrogen sulphide and sulphur. In rare cases, non-hydrocarbon content could be greater than 50%.

The term "resources" as used herein is intended to encompass all quantities of petroleum naturally occurring on or within the Earth's crust, discovered and undiscovered (recoverable and unrecoverable), plus those quantities already produced. Further, it includes all types of petroleum whether currently considered "conventional" or "unconventional."

Figure A1-1 is a graphical representation of the SPE/WPC/AAPG/SPEE resources classification system. The system defines the major recoverable resources classes: Production, Reserves, Contingent Resources, and Prospective Resources, as well as Unrecoverable petroleum.

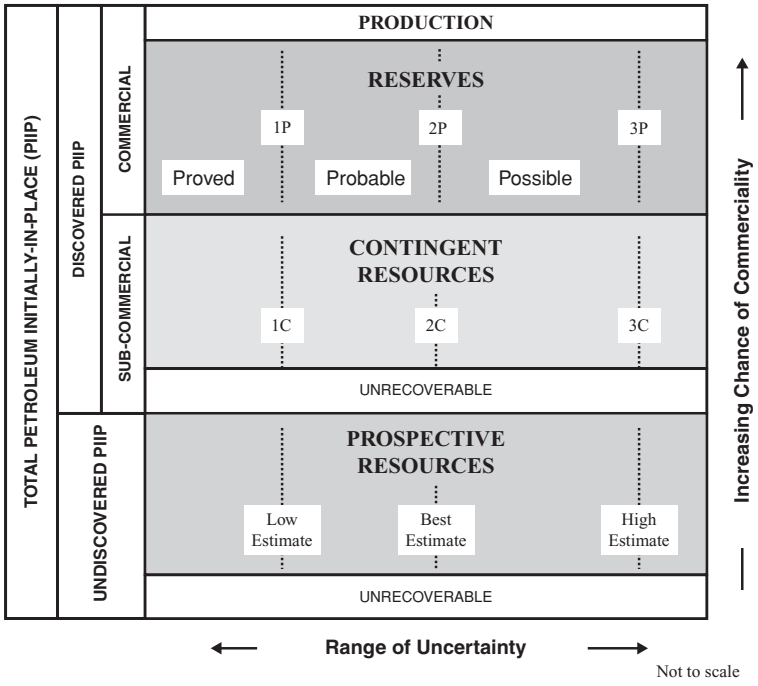

Figure B.1: Resources Classification Framework

The "Range of Uncertainty" reflects a range of estimated quantities potentially recoverable from an accumulation by a project, while the vertical axis represents the "Chance of Commerciality, that is, the chance that the project that will be developed and reach commercial producing status. The following definitions apply to the major subdivisions within the resources classification:

TOTAL PETROLEUM INITIALLY-IN-PLACE is that quantity of petroleum that is estimated to exist originally in naturally occurring accumulations. It includes that quantity of petroleum that is

estimated, as of a given date, to be contained in known accumulations prior to production plus those estimated quantities in accumulations yet to be discovered (equivalent to "total resources").

DISCOVERED PETROLEUM INITIALLY-IN-PLACE is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production.

PRODUCTION is the cumulative quantity of petroleum that has been recovered at a given date. While all recoverable resources are estimated and production is measured in terms of the sales product specifications, raw production (sales plus non-sales) quantities are also measured and required to support engineering analyses based on reservoir voidage.

Multiple development projects may be applied to each known accumulation, and each project will recover an estimated portion of the initially-in-place quantities. The projects shall be subdivided into Commercial and Sub-Commercial, with the estimated recoverable quantities being classified as Reserves and Contingent Resources respectively, as defined below.

RESERVES are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status.

CONTINGENT RESOURCES are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the level of certainty associated with the estimates and may be subclassified based on project maturity and/or characterized by their economic status.

UNDISCOVERED PETROLEUM INITIALLY-IN-PLACE is that quantity of petroleum estimated, as of a given date, to be contained within accumulations yet to be discovered.

PROSPECTIVE RESOURCES are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.

UNRECOVERABLE is that portion of Discovered or Undiscovered Petroleum Initially-in-Place quantities which is estimated, as of a given date, not to be recoverable by future development projects. A portion of these quantities may become recoverable in the future as commercial circumstances change or technological developments occur; the remaining portion may never be recovered due to physical/chemical constraints represented by subsurface interaction of fluids and reservoir rocks.

Estimated Ultimate Recovery (EUR) is not a resources category, but a term that may be applied to any accumulation or group of accumulations (discovered or undiscovered) to define those quantities of petroleum estimated, as of a given date, to be potentially recoverable under defined technical and commercial conditions plus those quantities already produced (total of recoverable resources).

1.2 Project-Based Resources Evaluations

The resources evaluation process consists of identifying a recovery project, or projects, associated with a petroleum accumulation(s), estimating the quantities of Petroleum Initially-in-Place, estimating that portion of those in-place quantities that can be recovered by each project, and classifying the project(s) based on its maturity status or chance of commerciality.

This concept of a project-based classification system is further clarified by examining the primary data sources contributing to an evaluation of net recoverable resources (see Figure A1-2) that may be described as follows:

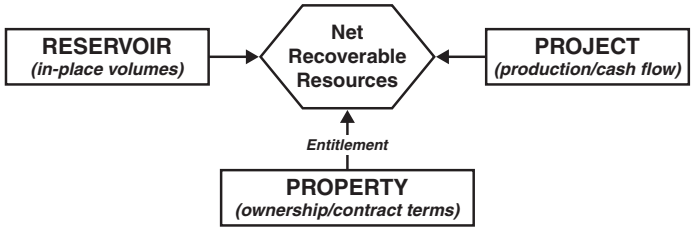

Figure B.2: Resources Evaluation Data Sources

- The Reservoir (accumulation): Key attributes include the types and quantities of Petroleum Initially-in-Place and the fluid and rock properties that affect petroleum recovery.
- The Project: Each project applied to a specific reservoir development generates a unique production and cash flow schedule. The time integration of these schedules taken to the project's technical, economic, or contractual limit defines the estimated recoverable resources and associated future net cash flow projections for each project. The ratio of EUR to Total Initially-in-Place quantities defines the ultimate recovery efficiency for the development project(s). A project may be defined at various levels and stages of maturity; it may include one or many wells and associated production and processing facilities. One project may develop many reservoirs, or many projects may be applied to one reservoir.
- The Property (lease or license area): Each property may have unique associated contractual rights and obligations including the fiscal terms. Such information allows definition of each participant's share of produced quantities (entitlement) and share of investments, expenses, and revenues for each recovery project and the reservoir to which it is applied. One property may encompass many reservoirs, or one reservoir may span several different properties. A property may contain both discovered and undiscovered accumulations.

In context of this data relationship, ''project'' is the primary element considered in this resources classification, and net recoverable resources are the incremental quantities derived from each project. Project represents the link between the petroleum accumulation and the decision-making process. A project may, for example, constitute the development of a single reservoir or field, or an incremental development for a producing field, or the integrated development of several fields and associated facilities with a common ownership. In general, an individual project will represent the level at which a decision is made whether or not to proceed (i.e., spend more money) and there should be an associated range of estimated recoverable quantities for that project.

An accumulation or potential accumulation of petroleum may be subject to several separate and distinct projects that are at different stages of exploration or development. Thus, an accumulation may have recoverable quantities in several resource classes simultaneously.

In order to assign recoverable resources of any class, a development plan needs to be defined consisting of one or more projects. Even for Prospective Resources, the estimates of recoverable quantities must be stated in terms of the sales products derived from a development program assuming successful discovery and commercial development. Given the major uncertainties involved at this early stage, the development program will not be of the detail expected in later stages of maturity. In most cases, recovery efficiency may be largely based on analogous projects. In-place quantities for which a feasible project cannot be defined using current, or reasonably forecast improvements in, technology are classified as Unrecoverable.

Not all technically feasible development plans will be commercial. The commercial viability of a development project is dependent on a forecast of the conditions that will exist during the time period encompassed by the project's activities. ''Conditions'' include technological, economic, legal, environmental, social, and governmental factors. While economic factors can be summarized as forecast costs and product prices, the underlying influences include, but are not limited to, market conditions, transportation and processing infrastructure, fiscal terms, and taxes.

The resource quantities being estimated are those volumes producible from a project as measured according to delivery specifications at the point of sale or custody transfer. The cumulative production from the evaluation date forward to cessation of production is the remaining recoverable quantity. The sum of the associated annual net cash flows yields the estimated future net revenue. When the cash flows are discounted according to a defined discount rate and time period, the summation of the discounted cash flows is termed net present value (NPV) of the project.

Licence Overview

The right of Glencore to conduct petroleum operations in Block O is defined in the Production Sharing Contract (the "Block O PSC") between the Republic of Equatorial Guinea and Glencore Exploration Ltd signed on the 13 July 2004.

The right of Glencore to conduct petroleum operations in Block I is defined in the Production Sharing Contract (the "Block I PSC") between the Republic of Equatorial Guinea Glencore Exploration (EG) Ltd signed on the 3 February 2000.

RPS does not opine on Glencore's rights under these PSC's.

Glencore has 23.75 per cent. equity (working interest) as a non-operating participating partner in the Block I PSC and 25 per cent. equity (working interest) as a non-operating participating partner in the Block O PSC. The following table summarises the partners and their respective equity interest in Blocks O and I.GEPetrol holds a 5 per cent. carried interest in Block I. In Block O GEPetrol has a 30 per cent. equity interest of which 10 per cent. is carried.

Glencore's Working Interest in Blocks O & I

Partner	Block I Interest	Block O Interest
	(%)	
Glencore Exploration (EG) Limited	23.75	
Glencore Exploration Limited		25
Noble Energy (Technical Operator)	38	45
Atlas Petroleum International Limited (Administrative Operator)	27.55	
Osborne Resources Limited	5.7	
GEPetrol	5	30

Within the blocks there are two government approved development projects Aseng and Alen; five discoveries, Carmen, Diega A-sand, Diega B-sand, Felicita and Yolanda; and a number of prospects.

Licence Status

The effective dates of the initial exploration licence in Block I was 3rd February 2000 and of Block O was 13th July 2004. The Aseng area of development is currently in an exploitation period (25 years) from the date when the PoD was approved (29 June 2009). Similarly the Alen area of development is in an exploitation period (25 years) from the date when the PoD was approved (11 January 2011).

In Block I, the contractor group has completed all work commitments for the first and second initial exploration sub periods (three years each) and extension periods, as shown in the following table. The second extension period has been extended and will expire on the 3 October 2013. The full activity in Block I to date includes acquisition of 3D seismic over the whole block and drilling of six exploration wells I-1 to I-6.

Block I Work Commitments

Block I PSC	Commitment	
First initial sub-period	Purchase approximately 1,000 km of 2D seismic	Fulfilled
Second initial sub-period	Drill one exploration well to minimum depth of 3,000m kb	Fulfilled
First extension period	Drill one exploration well	Fulfilled
Second extension period	Drill one exploration well	Fulfilled

In Block O, the contractor group has completed all work commitments as shown in the following table. Block O is now held as an appraisal area until 10 May 2013 with no future firm obligations. The full activity in Block O to date includes acquisition of 3D seismic and drilling of five exploration wells O-1 to O-5.

Block O Work Commitments

Block O PSC	Commitment	
First initial sub-period	Acquire 800 km$^{(2)}$ of 3D. Drill one exploration well	Fulfilled
Second initial sub-period	Drill one exploration well	Fulfilled
First extension period	Drill one exploration well	Fulfilled
Second extension period	Drill one exploration well	Fulfilled

Geological Overview

Blocks O and I are located in the Douala Basin which is located offshore Equatorial Guinea to the southeast of the Cameroon Volcanic Line (CVL), a chain of Cenozoic basaltic volcanoes which creates a sea-floor ridge separating the Douala Basin from the prolific Niger Delta Basin to the northwest. Sediment input to the Douala Basin is sourced from the Sanaga River drainage system in Cameroon. The Douala Basin lies on a passive margin which has witnessed little deformation since the Early Cretaceous.

To date hydrocarbon exploration within Blocks O & I has focussed on the Miocene section. Sands of this age were laid down across a slope environment as a repetitive series of isolated, laterally discontinuous channel-fill deposits derived from very low sinuosity turbidites. These sands tend to have high net to gross ratios with very good intergranular porosity and high pore connectivity values.

Oil seeps onshore in Cameroon, plus reservoired oil and gas in Blocks O and I in Equatorial Guinea suggest both Cretaceous and Tertiary petroleum systems are present.

The Alen and Aseng sands are Miocene in age. The Aseng and Alen reservoir sandstones were deposited in a deepwater setting on the continental slope in a relatively confined system which allowed for high net-to-gross sand ratios. Well and seismic data suggest that reservoirs are linear, relatively constant thickness sandstone bodies that appear to have the geometry of a feeder channel, and form a sequence of stacked channel sandstones. Up-dip seal is likely to be produced by a shale infill after the channel was abandoned due to avulsion.

Overview of Discoveries and Prospects

The Aseng discovery is in water depths ranging from 879m to 1,024m and lies wholly within the Block I PSC license area. The reservoir is stratigraphically trapped Miocene channel sands. The wells across the field have intersected gas, oil and water columns providing good control on the depths of the gas-oil (GOC) and oil-water (OWC) contacts. Over 20 well penetrations have been drilled on the Aseng reservoir.

The Alen Field is predominately in Block O although a small portion of the down dip part of the field extends into Block I. Water depths range from 76m to 679 m. Four wells penetrate the stratigraphically trapped Miocene channel sand. It is believed the field is purely a gas condensate field with no oil leg present.

The Felicita discovery is in Block O at a water depth of 63m. One well penetrates the stratigraphically trapped Miocene channel sand reservoir. The discovery contains gas condensate over water.

The Diega (A-Sand) discovery is in Block I at a water depth of 631m. One well penetrates the stratigraphically trapped Miocene channel sand reservoir. The discovery contains gas condensate over water. The Diega (B-Sand) was also penetrated by the same well. The well encountered gas over oil at this level but did not encounter a water contact. The Diega B-Sand accumulation straddles Blocks O and I.

The Carmen is in Block O at a water depth of 50m. One well penetrates the stratigraphically trapped Miocene channel sand reservoir. The well encountered the wet gas over an oil leg.

The Yolanda discovery is in Block I at a water depth of 895m. One well penetrates the stratigraphically trapped Miocene channel sand reservoir. The discovery contains gas. No water contacts were observed.

A large number of prospects have been identified in Blocks O and I in various sands of Early Miocene age.

Resources and reserves

Reserves and Resources Methodology

Reserves and Resources Classification

All reserves and resources definitions and estimates, and also risk factors, shown are based on the 2007 SPE/AAPG/WPC/SPEE Petroleum Resource Management System ("PRMS") and as reported to Glencore by RPS.

In estimating the following reserves and resources RPS have used standard petroleum engineering techniques. These techniques combine geological and production data with detailed information concerning fluid characteristics and reservoir pressure. RPS has estimated the degree of uncertainty inherent in the measurements and interpretation of the data and has calculated a range of recoverable resources. RPS has assumed that the working interest in the assets advised by Glencore is correct and RPS has not investigated nor does it make any warranty as to the Glencore interest in these properties.

Hydrocarbon resource and reserve estimates are expressions of judgement based on knowledge, experience and industry practice and are restricted to the data made available. They are, therefore, imprecise and depend to some extent on interpretations, which may prove to be inaccurate. Estimates that were reasonable when made may change significantly when new information from additional exploration or appraisal activity becomes available.

Risk Assessment

For all prospects and appraisal assets estimates of the commercial chance of success for Contingent Resources, and estimates of geological chance of success for Prospective Resources, have been made. In PRMS the former is called Chance of Development (CoD) and the latter Chance of Discovery (also CoD) in the PRMS system. To avoid confusion with acronyms we have used the term Geological Probability of Success (GPoS) in this document synonymously with Chance of Discovery.

Contingent Resources

The chance of success in this context means the estimated chance, or probability, that the volumes will be commercially extracted. A Contingent Resource includes both proved hydrocarbon accumulations for which there is currently no development plan or sales contract and proved hydrocarbon accumulations that are too small or are in reservoirs that are of insufficient quality to allow commercial development at current prices. As a result the estimation of the chance that the volumes will be commercially extracted may have to address both commercial (i.e. contractual or oil price considerations) and technical (i.e. technology to address low deliverability reservoirs) issues.

Prospective Resources (Exploration Prospects)

Unlike risk assessment for Contingent Resources, when dealing with undrilled prospects there is a more accepted industry approach to risk assessment for Prospective Resources. It is standard practice to assign a Geological Probability of Success (GPoS) which represents the likelihood of source rock, charge, reservoir, trap and seal combining to result in a present-day hydrocarbon accumulation. RPS assesses risk by considering both a play risk and a prospect risk. The chance of success for the play and prospect are multiplied together to give a Geological Probability of Success (GPoS). We consider three factors when assessing play risk: source, reservoir, seal and we consider four factors when assessing prospect risk: trap, seal, reservoir and charge. The result is the chance or probability of discovering hydrocarbon volumes within the range defined (as set out in the paragraph below "Uncertainty Estimation"). It is not an estimation of commercial chance of success.

Uncertainty Estimation

The estimation of expected hydrocarbon volumes is an integral part of the evaluation process. It is normal practice to assign a range to the volume estimates because of the uncertainty over exactly how large the discovery or prospect will be. Estimating the range is normally undertaken in a probabilistic way (i.e. using Monte Carlo simulation), using a range for each input parameter to derive a range for the output volumes. Key contributing factors to the overall uncertainty are data uncertainty, interpretation uncertainty and model uncertainty.

Volumetric input parameters, gross rock volume (GRV), porosity, net-to-gross ratio (N:G), water saturation (S_w), fluid expansion factor (B_o or B_g) and recovery factor, are considered separately. RPS has internal guidelines on the best practice in characterising appropriate input distributions for these parameters.

Systematic bias in volumetric assessment is a well-established phenomenon. There is a tendency to estimate parameters to a greater degree of precision than is warranted[1] and to bias pre-drill estimates to the high side. Rose and Edwards observe the tendency towards assessing volumes in too narrow a range with overly large low-side and mean estimates. RPS uses benchmarked P90/P10 ratios and known field size distributions to check the reasonableness of estimated volumes.

Audit Method

RPS has performed the audit of Reserves and Resources estimates in accordance with generally accepted petroleum engineering evaluation principles as set forth in the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers ("SPE Audit Standards").

As with any audit RPS reviewed the Operator's interpretation and information and proceeded to perform the tests and procedures deemed necessary to confirm the reasonableness of the Operator's Reserves or Resources estimates. In this case the Operator's work that has been reviewed was confined to the Aseng and Alen fields. The work that RPS audited on the other discoveries in Blocks O and I and the prospect inventory was undertaken by Glencore.

The RPS approach in this instance has been to review the technical interpretation of the geoscience and engineering data for reasonableness. Where necessary RPS has undertaken independent re-interpretation to produce a technically reasonable base case interpretation. RPS then reviewed the Operator's ranges of uncertainty for each parameter around this base case which have been used to estimate a range of petroleum initially in place and recoverable for each field. Production profiles have then been developed for each model. Furthermore, RPS has reviewed the Operator's estimates of operating costs (Opex) and capital expenditure (Capex) for reasonableness.

The following tables show the estimated reserves and resources for Blocks O & I as determined by RPS.

Reserves as of 31 December 2010 (Exclusive of Resources)

	Reserves								
	Gross Field			Glencore Working Interest[2]			Glencore net Entitlement[1]		
	1P	2P	3P	1P	2P	3P	1P	2P	3P
	(MMstb)								
Aseng[3]	97	113	131	23	27	31	27	30	32
Alen[4]	45	82	128	11	20	32	10	17	26

Notes:

(1) Contractor's net entitlement is their share of Cost Oil and Profit Oil calculated using the Production Sharing Contract (PSC) terms. Aseng reserves include carry repayment from Atlas Petroleum

(2) Glencore working interest in Block O is 25 per cent. Glencore working interest in Block I is 23.75 per cent.

(3) Includes oil and condensate

(4) The Operator's assumption that Alen is 95 per cent. in Block O and 5 per cent. in Block I has been used in this valuation. RPS does not opine on this split for equity determination purposes.

(1) Rose, P.R., 1987. Dealing with Risk and Uncertainty in Exploration: How Can We Improve? AAPG Bulletin, 71 (1), pp. 1-16.

Block O and I Contingent Resources as of 31 December 2010 (on-block) (Exclusive of Reserves)

	Contingent Resources								
	Gross Field			Glencore Working Interest[1]			Glencore net Entitlement		
	1C	2C	3C	1C	2C	3C	1C	2C	3C
Liquids (MMstb)[3]									
Yolanda[4]	3.3	5.2	7.5	0.8	1.2	1.8	—[2]	—[2]	—[2]
Felicita[4]	1.8	3.2	5.5	0.4	0.8	1.4	—[2]	—[2]	—[2]
Diega (A-Sand)[4]	3.3	6	10	0.8	1.4	2.4			
Diega (B-Sand)[4][5]	24	52	99	5.7	12	24	4	8	14
Carmen (B-Sand)[4]	5.1	10	20	1.3	2.0	4.9	—[2]	—[2]	—[2]
Gas (Bscf)									
Aseng	419	519	640	100	123	152	—[2]	—[2]	—[2]
Alen	471	850	1,326	118	213	332	—[2]	—[2]	—[2]
Yolanda	393	506	640	93	120	152	—[2]	—[2]	—[2]
Felicita	49	71	104	12	18	26	—[2]	—[2]	—[2]
Diega (A-Sand)	122	176	249	29	42	59	—[2]	—[2]	—[2]
Diega (B-Sand)	46	94	193	11	22	46	—[2]	—[2]	—[2]
Carmen (B-Sand)	24	39	64	6	10	16	—[2]	—[2]	—[2]

Notes:

(1) Glencore working interest in Block O is 25 per cent. and Glencore working interest in Block I is 23.75 per cent.

(2) Valuation of gas and accumulations with minor liquid volumes not undertaken therefore net Entitlement not estimated

(3) Includes oil and condensate

(4) Yolanda & Diega A are 100 per cent. in Block I: Felicita & Carmen 100 per cent. in Block O: Diega B is approximately 90 per cent. in Block I & 10 per cent. in Block O. These approximations have been used in the valuation where appropriate. RPS does not opine on those splits for equity determination purposes.

Block O and I Prospective Resources as of 31 December 2010 (on-block) (Exclusive of Reserves)

	Prospective Resources (Unrisked)									
	In-Place			Recoverable						
	Gross			Gross			Glencore Working Interest[1]			
	P90	P50	P10	P90	P50	P10	P90	P50	P10	GPoS
										(%)
Oil (MMstb)										
Arabella[2][3]	0	0	0	0	0	0	0	0	0	
Adriana NE[2]	0	0	0	0	0	0	0	0	0	
Sarah A[2]	53	78	111	16	31	56	3.8	7.4	13.3	29
Isidora[2]	33	58	99	10	23	50	2.4	5.5	11.9	33
Regina A[2]	24	49	97	7	20	49	1.7	4.8	11.6	42
Sofia[2]	26	58	126	8	23	63	1.9	5.5	15	47
Carla[2][3]	210	400	749	63	160	375	15.4	39	91	23
Condensate (MMstb)										
Arabella	13	23	39	3.9	9.2	20	1	2.3	5	44
Adriana NE	5.2	14	36	1.6	5.6	18	0.4	1.4	4.5	47
Sarah A	6.7	10	15	2.0	4.0	7.5	0.5	1.0	1.8	29
Isidora	4.6	8.1	14	1.4	3.2	7.0	0.3	0.8	1.7	33
Regina A	3.3	6.8	14	1.0	2.7	7.0	0.2	0.6	1.7	42
Sofia	3.6	8.2	18	1.1	3.3	9.0	0.3	0.8	2.1	47
Carla	29	56	107	8.7	22	54	2.1	5.4	13.2	23
Gas (Bscf)[4]										
Arabella	189	325	553	142	260	470	35	65	117	44
Adriana NE	76	198	514	57	158	437	14	40	109	47
Sarah A	118	173	245	89	138	208	21	33	49	29
Isidora	58	102	175	44	82	149	10	19	35	33
Regina A	42	86	172	32	69	146	8	16	35	42
Sofia	46	103	224	35	82	190	8	19	45	47
Carla	369	707	1327	277	566	1,128	68	138	275	23

Notes:

(1) Glencore working interest in Block O is 25 per cent. and in Block I is 23.75 per cent.

(2) Sarah A, Isidora, Regina A, Sofia are 100 per cent. in Block I; Adriana NE is 100 per cent. in Block O; Arabella is 90/10 Block O/Block I, and Carla is 50/50 Block O/Block I. These approximations have been used in the valuation where appropriate. RPS does not opine on these splits for equity determination purposes.

(3) Glencore Interest for Arabella and Carla are weighted averages of block working interests.

(4) Gas volumes include inerts.

Alen Development Plan

The Alen development plan is split into two phases. During the first phase, the condensate will be produced with the gas recycled to maintain pressure. Gas will be produced from three wells located updip in the field, condensate will be stripped at the platform and dry gas will be re-injected into the reservoir down dip. It is assumed this phase would last a minimum of three years. The second phase of gas production would commence when the infrastructure for gas sales becomes available and other gas sales commercial arrangements are in place. The produced condensate will be stabilised for export through a subsea pipeline to the Aseng FPSO for storage and sales offload. This will save costs associated with a separate storage and offloading facility for the condensate.

The Operator's concept selection calls for two fixed platforms a well protector platform and a production platform. The production platform will consist of a large jacket and topsides with processing equipment, utilities systems, and quarters. Both fixed platforms will be new build structures. This concept offers an opportunity for Alen Field to become a future gas hub for the area after a staged development of Alen. Alen can be developed first, and then more facilities/satellite platforms can be added as other gas is routed to Alen for processing.

The Alen Field will be produced from surface wells at the fixed platform site with gas re-injected into subsea trees and wellhead systems. The remote subsea wells will be connected to the host fixed platforms with seabed flowlines. Umbilicals will also be provided to support the required control and maintenance functions associated with the subsea systems.

The fixed platforms will incorporate installation and handling aids required for these various lines (pull-in systems, I-tubes, etc.). The fixed platforms will also incorporate the subsea control systems and support utility equipment required to operate the subsea systems (e.g. control stations and panels, hydraulic power units, umbilical termination units, etc.).

First production from Alen is expected from 1 January 2014.

The following table outlines the estimated production profile for the Alen field daily production of condensate and illustrates the expected plateau duration, peak production timings, and anticipated decline and field life.

Average Yearly Production Rate and Cumulative Recovery for Alen

	Low Case (P90)		Base Case (P50)		High Case (P10)	
Year	Cumulative Production	Annualised Daily Production	Cumulative Production	Annualised Daily Production	Cumulative Production	Annualised Daily Production
	(MMstb)	*(stb/d)*	*(MMstb)*	*(stb/d)*	*(MMstb)*	*(stb/d)*
2014	11.9	32,643	12.0	32,832	12.2	33,482
2015	23.8	32,570	24.0	32,832	24.5	33,482
2016	34.1	28,186	36.0	32,878	36.7	33,573
2017	40.3	17,020	47.1	30,359	48.9	33,444
2018	43.4	8,295	56.0	24,313	60.7	32,152
2019	44.7	3,623	63.3	20,109	70.8	27,581
2020	45.3	1,597	69.1	15,796	79.3	23,362
2021	45.6	789	73.3	11,630	87.1	21,335
2022	45.7	459	76.3	8,275	94.2	19,630
2023	45.8	307	78.5	5,771	100.5	17,196
2024	45.9	226	79.9	4,092	105.8	14,435
2025	46.0	178	81.0	2,997	110.0	11,575
2026	46.0	148	81.9	2,293	113.4	9,127
2027	46.1	128	82.5	1,817	116.0	7,304
2028	46.1	114	83.1	1,479	118.2	6,047
2029	46.2	103	83.5	1,216	120.1	5,110
2030	46.2	95	83.9	1,012	121.7	4,384
2031	46.2	88	84.2	848	123.1	3,775
2032	46.3	83	84.5	719	124.3	3,264
2033	46.3	78	84.7	611	125.3	2,816
2034	46.3	74	84.9	526	126.2	2,453
2035	46.3	70	85.1	456	127.0	2,154

Aseng Development Plan

Aseng will be developed by five producers and one water injector that have been drilled and completed subsea from two drill centres. In addition to this, two further water injectors have been drilled and I-1 and I-2 will be completed as gas injectors, I-2 will only be utilised if deemed necessary once production and injection performance has been assessed. These wells will then be tied back to an FPSO, which will be a converted VLCC tanker. Oil export will be by tanker offtake.

The reservoir management plan consists of injecting water (as required) and gas to maintain voidage replacement (and thus maintain reservoir pressure). Later in field life, gas lift can be added (gas lift valves will be included in the initial well completions).

First production from Aseng is expected from 1 January 2012.

The following table outlines the estimated production profile for the Alen field daily production of condensate and illustrates the expected plateau duration, peak production timings, and anticipated decline and field life.

Aseng Field Liquid Production Rate and Cumulative Recovery after 20 Years (Gross, 100 per cent. Basis)

	Low Case (P90)		Base Case (P50)		High Case (P10)	
Date	Cumulative Production	Annualised Daily Production	Cumulative Production	Annualised Daily Production	Cumulative Production	Annualised Daily Production
	(MMstb)	*(stb/d)*	*(MMstb)*	*(stb/d)*	*(MMstb)*	*(stb/d)*
2012	18	50,000	18	50,000	18	50,000
2013	36	48,821	37	50,000	37	50,000
2014	50	36,952	52	41,920	53	45,934
2015	60	29,628	65	35,093	66	35,667
2016	68	21,748	74	26,673	78	31,000
2017	75	17,560	82	19,858	87	24,470
2018	80	14,100	88	16,726	94	20,291
2019	84	11,005	93	13,985	100	17,379
2020	88	10,397	97	10,830	106	15,373
2021	91	9,567	101	10,362	110	11,488
2022	94	7,160	104	9,792	114	10,838
2023	95	3,215	107	9,156	118	10,367
2024	96	2,641	109	5,255	121	9,847
2025	97	2,828	110	3,019	125	9,167
2026	97	1,381	111	2,647	127	5,849
2027			112	2,756	128	3,260
2028			113	2,400	129	2,685
2029					130	2,666
2030					131	2,923
2031					132	1,685

Note:

Liquid rates oil plus condensate.

Diega B Notional Development Plan

The notional development for Diega B sands has been based on a subsea tie-back to the Aseng FPSO some 20km away. Diega B sand has an excellent reservoir quality, so the initial average 10,000 stb/d per horizontal well from Aseng is maintained for all cases. To minimise the amount of subsea piping, drilling from a subsea template has been assumed. This will necessitate pre-drilling all the producers. Three production wells and one water injector will be required to reach a possible 30,000bopd plateau. The field is timed to come on stream in 2014 when it is thought that sufficient ullage will be available in the Aseng system.

Similar to Aseng a 2-3 years plateau period has been assumed. The forecast is for a 25-year period.

Valuation of reserves

Valuation Assumptions

General

The effective date for the purpose of the valuation is 1 January 2011 and this has been used as the discount date for the valuation. All values are post-tax and have been expressed over a range of discount rates. An annual inflation rate of 2 per cent. has been assumed and is applied to both costs and revenues.

Oil Prices

The valuation has been based on the long term forecast for Brent (long term price of U.S.$83.75/stb in real 2010 dollars) as shown in the following table. A Low Price Case ($65/stb in real 2010 dollars) and High Price Case ($100/stb in real 2010 dollars) are also shown in the Table in Money of the Day (MoD) and have been used for price sensitivity purposes.

Brent Price Forecasts

	Low Price Case	Base Price Case	High Price Case
	(U.S.$/stb, MoD)	*(U.S.$/stb, MoD)*	*(U.S.$/stb, MoD)*
2010	77.84	78.59	79.09
2011	74.00	85.00	95.00
2012	71.50	87.00	102.00
2013	70.00	88.00	106.00
2014	70.36	90.65	108.24
2015	71.77	92.47	110.41
2016	73.20	94.32	112.62
2017	74.66	96.20	114.87
2018	76.16	98.13	117.17
2019	77.68	100.09	119.51
2020	79.23	102.09	121.90
2021 onwards	+2% p.a.	+2% p.a.	+2% p.a.

The RPS Price Forecast comprises of two components: (i) a near term price forecast for 2011-2013 which is based on the RPS near term MoD price forecast (as set out in the table above) and (ii) from 2014 onwards an equivalent long term 2010 real price of U.S.$65/U.S.$83.75/U.S.$100 for low price case/mid price case/high price case respectively inflated at 2 per cent. p.a. to derive MoD prices. The final low/mid/high price forecasts are a combination of the near and long term price forecasts. They are expressed in the table above and applied in the valuation in MoD terms.

Money of the day prices, sometimes also referred to as nominal or current prices, incorporate the effects of annual inflation and reflect the time value of money. For example, the mid case oil price of U.S.$83.75 in 2010 would be equivalent to U.S.$85.43 one year in the future (2011) assuming that annual inflation was 2%. The figure of U.S.$85.43 would be described as the price in MoD terms. Conversely if the price in one year (2011) was forecast to be U.S.$83.75 in MoD terms this would be equivalent to U.S.$82.11 (i.e. U.S.$83.75/1.02) in (2010). The figure of U.S.$82.11 would be described as the price in real terms. Thus the U.S.$83.75 mid case oil price in 2010 would be equivalent to U.S.$90.65 in 2014 in MoD terms as shown in the table above. The forecast price in every subsequent year after 2014 will increase by 2% over the previous year's forecast price.

The effect of inflation is illustrated below:

	2010	2011	2012	2013	2014	2015
			(U.S.$)			
Price in real terms	83.75	83.75	83.75	83.75	83.75	83.75
Price in MoD terms	83.75	85.43	87.13	88.88	90.65	92.47
Price in real terms	83.75	82.11	80.50	78.92	77.37	75.85
Price in MoD terms	83.75	83.75	83.75	83.75	83.75	83.75

The Aseng crude price is assumed to have a differential to Brent crude prices of −3 per cent., and this assumption has been applied to the Diega discovery. Alen condensate price is assumed at parity with the Brent price.

Gas Prices

The Plans of Development for both Aseng and Alen do not feature gas sales and in view of the immaturity of plans to monetise hydrocarbon gas from Equatorial Guinea waters this valuation does not include possible future gas sales.

Valuation Methodology

Aseng and Alen

The Aseng Field is within the "Block I" PSC area (the PSC for the D15 Block offshore Bioko Island). The Alen Field straddles Blocks O and I PSC contract areas. For valuation purposes RPS has assumed that 95 per cent. of Alen is within Block O and subject to the Block O PSC terms and 5 per cent. of Alen is in Block I and subject to the Block I PSC terms. As a first pass approximation the valuation assumes that the field will be unitised on this basis. RPS is not opining on the unitisation of the field. The relative proportion in each block has been taken from the Alen PoD and is not necessarily the opinion of RPS. The 5 per cent. of Alen assumed to lie within Block I is valued on an incremental basis relative to the Aseng field P50 development case. Spreadsheet based discounted cashflow models were created to honour each of the Block I and O PSC contract terms.

Fiscal Regime and Contract Terms

The PSCs in which Glencore has an interest are typical for Equatorial Guinea. There are royalties payable to the state based on production rates, cost recovery from a percentage of net revenue and contractor profit share based on production. Production bonuses and an abandonment reserve fund also apply. The contractor is subject to Corporation Tax on contractor income. As advised by Glencore, and consistent with both Aseng and Alen PoD submissions, the tax rate on income from Blocks I and O is 25 per cent.

Valuation Summary

Valuation of Aseng

After applying economic limits and deriving entitlement income from Block I PSC, the 1P, 2P and 3P Reserves for the Aseng Field are summarised in the following table.

Aseng Field Reserves Summary (Net Glencore Share)

	Gross Reserves	Net Entitlement Reserves
	(MMstb)	*(MMstb)*
Proved Reserves (1P)	97	27
Proved plus Probable Reserves (2P)	113	30
Proved plus Probable plus Possible Reserves (3P)	131	32

The valuation of the Aseng reserves at the 1P, 2P and 3P levels on a 2011 point forward basis over a range of discount factors is shown in the following table.

Aseng Field Post-Tax Valuation (Net Glencore Share)

	Post-Tax Net Present Value			
Discount Rate	**0.0%**	**5.0%**	**10.0%**	**15.0%**
		(U.S.$m, MoD)		
Proved Reserves (1P)	1,355	1,133	966	836
Proved plus Probable Reserves (2P)	1,496	1,234	1,041	893
Proved plus Probable plus Possible Reserves (3P)	1,649	1,333	1,108	941

The sensitivity of these values to oil price uncertainty was calculated using the low and high price scenarios described above and is shown below.

Sensitivity of Aseng NPV_{10} to Oil Price (Net Glencore Share)

	Net Present $Value_{10}$ of Future Net Revenue		
Price Case	**1P**	**2P**	**3P**
		(U.S.$m, MoD)	
Low Price ($65)	800	860	912
Base Price ($83.75)	966	1,041	1,108
High Price ($100)	1,117	1,207	1,288

Valuation of Alen

After applying economic limits and deriving entitlement income from Block O and Block I PSCs, the 1P, 2P and 3P Reserves for the Alen Field are summarised in the table below.

Alen Field Reserves Summary

	Gross Reserves	Net Entitlement Reserves
	(MMstb)	*(MMstb)*
Proved Reserves (1P)	45	10
Proved plus Probable Reserves (2P)	82	17
Proved plus Probable plus Possible Reserves (3P)	128	26

The valuation of the Alen field Reserves at the 1P, 2P and 3P levels on a 2011 point forward basis over a range of discount rates are in the following table.

Alen Field Post-Tax Valuation (Net Glencore Share)

	Post-Tax Net Present Value			
Discount Rate	**0.0%**	**5.0%**	**10.0%**	**15.0%**
		(U.S.$m, MoD)		
Using RPS Cost Estimates				
Proved Reserves (1P)	259	151	73	17
Proved plus Probable Reserves (2P)	665	419	255	144
Proved plus Probable plus Possible Reserves (3P)	1,148	687	412	240
Using Operator Cost Estimates				
Proved Reserves (1P)	290	182	104	48
Proved plus Probable Reserves (2P)	691	447	284	173
Proved plus Probable plus Possible Reserves (3P)	1,174	715	441	270

The sensitivity of these values to oil price uncertainty was calculated using the Low and High price scenarios described above and is shown below.

Sensitivity of Alen Field NPV_{10} to Oil Price (Net Glencore Share)

	Net Present Value$_{10}$ of Future Net Revenue		
Price Case	**1P**	**2P**	**3P**
	(U.S.$m, MoD)		
Low Price ($65)	(15)	126	233
Base Price ($83.75)	73	255	412
High Price ($100)	167	368	542

After applying economic limits and deriving entitlement income from Block I and Block O PSCs, the 1C, 2C and 3C Contingent Resources for the Diega B Field are summarised in the following table.

Diega B Field Contingent Resources Summary

	Gross Resources	Net Entitlement Resources
	(MMstb)	*(MMstb)*
1C Resources	23	4
2C Resources	49	8
3C Resources	91	14

Environmental and Facilities

Environmental Permits and Status

A summary of the health and safety review carried out by RPS is given below. The review of both the Alen and Aseng field development projects, based on the interpretation of the data, which was made available to RPS, confirms that both projects are in full compliance with the applicable laws and regulations of Equatorial Guinea and recognised best oilfield practice.

Laws of Equatorial Guinea

The following table provides an overview of Equatorial Guinea's key laws that are of potential relevance to the project.

Law	Description
Law Regulating the Environment in the Republic of Equatorial Guinea: Ministry of Fishing and Environment (Issued January 2004)	Provides the legal and philosophic basis concerning the basic norms of conservation, protection and recovery of the environment, promoting the sustainable use of natural resources, while achieving sustainable human development in the Republic of Equatorial Guinea.
Hydrocarbon Law. Ministry of Mines, Industry and Energy. 8/2006 (November 2006, "The Hydrocarbon Law")	Provides the framework for the licensing and awarding of exploration and production rights and authorizes the MMIE to enter into contracts with oil companies. The legal framework of the Hydrocarbon Law was updated to provide the necessary coverage for elements within the hydrocarbon sector that were previously nonexistent or did not adequately meet the needs of the Government.
Law of Territorial Seas and Exclusive Economic Zone (November 1984)	Defines the sovereignty of EG over its territorial sea and defines its rights over the marine resources therein. This sovereignty is exercised, in accordance with international law, over the water column, seabed, subsoil, and resources of the sea, and the superjacent airspace.

Social and Environmental Impact Assessment

Both projects are subject to environmental regulations under the legal framework of the environmental management of Equatorial Guinea and as such, the Operator provided the Equatorial Guinea regulatory authorities with a Social and Environmental Impact Assessment ("SEIA") pursuant to which relevant environmental protection, management standards and procedures which will be continually enforced during the project.

The SEIA sufficiently assesses the potential impact that the proposed project could have on the environment and social community. The SEIA also offers proposed mitigation measures to lower the risk / impact to as reasonably possible. The SEIA exceeds the requirements for an environmental impact study.

In summary, the SEIA for each project demonstrates that operations are in full compliance with the applicable laws and regulations of Equatorial Guinea and also sufficiently assesses / mitigates any potential impacts that could be caused by the project.

Oil Spill Contingency Plan

Both fields have been included on one approved Oil Spill Contingency Plan ("OSCP"), which covers operations and responsibility in the event of an oil spill.

The Operator OSCP gives clear directions and identifies responsibility in the event of a spill. It also provides project specific modelling data, which estimates the position of the oil spilt and also gives an estimated beaching location.

SECTION XIV: INDEPENDENT TECHNICAL REPORTS

SUB-SECTION B: PRODECO REPORT

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Ref: ADV-SY-03728

4th May 2011

The Directors
Glencore International plc (the "Company")
Queensway House, Hilgrove Street
St Helier Jersey JE1 1ES

Dear Sirs,

COMPETENT PERSON'S REPORT – GLENCORE COLOMBIAN COAL ASSETS

This Competent Person's Report ("*CPR*") has been prepared jointly by Minarco-MineConsult ("*MMC*") and McElroy Bryan Geological Services ("*MBGS*") at the request of Glencore International AG ("*Glencore*"). The scope is to undertake an independent technical review and valuation of the relevant geological, mining and infrastructure assets of Glencore in Colombia; including specifically CI Prodeco SA ("*Prodeco*"), the Calenturitas Coal Mine ("*Calenturitas*") and the La Jagua Coal Mine ("*La Jagua*"). The combined MMC and MBGS technical review team is referred to in this report as "*MMC/MBGS*". It is understood that Glencore will include this report in a prospectus to be published in connection with the Initial Public Offering ("*IPO*") of Glencore International plc on the London Stock Exchange and the Hong Kong Stock Exchange. Glencore International plc is expected to be the parent company of the group.

The purpose of the report is to provide a technical opinion as to the accuracy and reasonableness of the information supporting the assets. The focus of the review is on the technical aspects of the assets; including geology, Resources and Reserve Statements, mine plans, production rates, infrastructure, environment and capital and operating costs estimates.

This report, which summarises the findings of our review, has been prepared in order to satisfy the requirements of the "Prospectus Rules" published by the UK Financial Services Authority from time to time and governed by the UK Listing Authority, the "Prospectus Directive" (2003/71/EC) and the Prospectus Regulations (809/2004), "CESR's (now the European Securities and Markets Authority) recommendations for the consistent implementation of the European Commissions Regulation on Prospectuses No. 809/2004" (as updated by the European Securities and Market Authority on 23 March 2011 following the publication of a consultation paper in April 2010 in relation to the content of prospectuses regarding mineral companies) and Chapter 18 of the Hong Kong Listing Rules. The CPR has been conducted in recognition of the requirements of the "Australian Code for Reporting of exploration Results, Mineral Resources and Ore Reserves" (December 2004) 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 and are supported by details of drilling results, analyses and other evidence and takes account of all relevant information supplied to us by company management and the directors of Glencore.

MMC/MBGS has made no independent review to determine whether Glencore holds any other key Colombian assets. Other global assets of Glencore have not been valued as part of this report.

Glencore, through its wholly owned subsidiary Prodeco, owns and operates two open cut coal mines in Colombia; the Calenturitas and the La Jagua coal mines. The mines are located in an active mining region of the Department of Cesar, Colombia, approximately 100 km south of the city of Valledupar. The Puerto Prodeco is located some 220 km to the north of the project site on Colombia's Caribbean coast near the city of Santa Marta, as shown in **Figure 1**. The two mines are separated by approximately 20 km. Prodeco holds exploration and mining title over both coal deposits.

The Calenturitas mine has **400 Mt** of Resources, **209** Mt of Reserves and for 2011 is budgeted to produce 8.5 Mtpa with plans to expand to approximately 14 Mtpa by 2015 with a life of mine to 2029.

The La Jagua mine has **140 Mt** of Resources, **128 Mt** of Reserves and for 2011 is budgeted to produce 7.1 Mtpa with a life of mine to 2029.

MMC/MBGS has reviewed each of the Prodeco assets and has undertaken a valuation of the operating assets included in Prodeco's cash flow forecasts. MMC/MBGS concludes from this review:

- no material flaws, errors or omissions on the technical aspects of the Project were discovered during the review;
- the technical information reviewed is considered reasonable and has been prepared by professionals using appropriate software and industry standards;
- the geological and geotechnical understanding is of a sufficient level to support short, medium and long-term planning as appropriate;

- the mine plans appropriately reflect known geological and geotechnical understanding and account for predicted mining hazards;
- Prodeco's mining equipment (either in place or planned in the capital forecasts) is suited to its mine plans and supports the production levels forecast;
- the assumptions used in estimating coal and waste production volumes, working room, mining losses and dilutions are appropriate and reasonable;
- coal handling and other infrastructure including rail and port are capable of producing and supplying appropriate coal quality products to satisfy the export markets at the forecast volumes;
- identified environmental issues are being well managed and there are no apparent issues that could impede production nor are any prosecutions pending;
- the assumptions used in estimating operating costs are appropriate and reasonable, covering the spectrum of mining, processing, coal transport, and site administration associated in getting the coal to the point of sale;
- capital costs used in the financial models reflect the mine plans, development and construction schedules and the forecast production levels;
- key risks identified by MMC/MBGS 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.

MMC/MBGS is of the opinion that the Colombian coal assets of Prodeco:

- represent a significant component of the Colombian coal industry;
- have mine plans over areas of Measured and Indicated Resources which generate forward schedules for more than 19 years;
- have a total value (at 10% discount factor) of Proved and Probable Reserves of approximately USD 4,885 million with 75% of this value associated with Proved Reserves (based on a valuation date 01/01/2011); and
- have value that is most sensitive to changes in coal price with a 15% reduction in coal price decreasing reserve value by over 32 % to USD 3,298 million.

MMC and MBGS have both been commissioned to jointly prepare this CPR and this CPR was undertaken on behalf of MMC and MBGS by the signatories of this report.

The first signatory to this CPR, Mr. Grant Walker, BE (Mining) MAusIMM, is a member of the Australasian Institute of Mining and Metallurgy, and is an employee of MMC. He has over 15 years experience in the mining industry with significant experience in technical reviews, audits, due diligence assessments and valuation of mining assets. He has sufficient experience which is relevant to the style of mineralisation and types of coal deposits under consideration, and to the activity he is undertaking outcome of this CPR, to qualify him as a Competent Person (as defined in the 2004 Edition of the JORC Code).

The second signatory to this letter, Mr. Kerry Whitby, FAusIMM, is a Fellow of the Australasian Institute of Mining and Metallurgy, and is the Managing Director of McElroy Bryan Geological Services. He has 39 years experience in the mining industry and has sufficient experience which is relevant to the style of mineralisation and types of coal deposits under consideration, and to the activity he is undertaking in relation to this CPR, to qualify him as a Competent Person (as defined in the 2004 Edition of the JORC Code).

Yours sincerely,

Grant Walker
Consulting Mining Engineer
Minarco-MineConsult

Kerry Whitby
Managing Director
McElroy Bryan Geological Services

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ANNEX A Qualifications and experience
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1. INTRODUCTION

1.1 Purpose of Report

This Competent Person's Report ("*CPR*") has been prepared jointly by Minarco-MineConsult ("*MMC*") and McElroy Bryan Geological Services ("*MBGS*") at the request of Glencore International AG ("*Glencore*"). The scope was to undertake an independent technical review and valuation of the relevant geological, mining and infrastructure assets of Glencore in Colombia; including specifically CI Prodeco SA ("*Prodeco*"), the Calenturitas Coal Mine ("*Calenturitas*") and the La Jagua Coal Mine ("*La Jagua*") (together the "Assets"). The combined MMC and MBGS technical review team is referred to in this report as "*MMC/MBGS*". It is understood that Glencore will include this report in a prospectus to be published in connection with the Initial Public Offering ("*IPO*") of Glencore International plc on the London Stock Exchange and Hong Kong Stock Exchange. Glencore International plc is expected to be the ultimate parent company of the group.

The purpose of the report is to provide a technical opinion as to the accuracy and reasonableness of the information supporting the assets. The focus of the review is on the technical aspects of the assets; including geology, resources and reserve estimates, mine plans, production rates, infrastructure, environment and capital and operating costs estimates.

This report, which summarises the findings of our review, has been prepared in order to satisfy the requirements of the "Prospectus Rules" published by the UK Financial Services Authority from time to time and governed by the UK Listing Authority, the "Prospectus Directive" (2003/71/EC) and the Prospectus Regulations (809/2004), "CESR's (now the European Securities and Markets Authority "ESMA") recommendations for the consistent implementation of the European Commissions Regulation on Prospectuses No. 809/2004" (as updated by the European Securities and Market Authority on 23 March 2011 following the publication of a consultation paper in April 2010 in relation to the content of prospectuses regarding mineral companies) and Chapter 18 of the Hong Kong Listing Rules. With respect to resources and reserves the CPR has been conducted in recoginition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (December 2004) 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 and are supported by details of drilling results, analyses and other evidence and takes account of all relevant information supplied to us by company management and the directors of Glencore.

Also, the CPR recognises the *Code for The Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Report, The VALMIN Code, 2005 Edition*, prepared by the VALMIN Committee, a joint committee of the Australasian Institute of Mining and Metallurgy.

MMC has made no independent review to determine whether Glencore holds any other key Colombian assets and other global assets of Glencore have not been valued as part of this report.

1.2 Scope of Work

MMC/MBGS carried out the following scope of work:

- Introductory meetings with Glencore's management and consultants to fully understand the business plan.
- Site visits and collection of data.
- Review and assessment of technical aspects of the Assets. The key elements of review included:
    - suitability of existing information supporting the Life of Mine and Business Plans;
    - geology reports and models;
    - resource and reserve estimates;
    - mining operations and proposed expansions;
    - coal preparation and handling;
    - coal transportation;
    - port operations;
    - environmental approvals and matters;
    - estimated capital and operating costs
    - identification of key project drivers and issues; and
    - valuation of Reserves.

- Preparation of this CPR in a format commensurate with the recommendations and guidelines of the UKLA, European Securities and Market Authority and the listing rules.

In accordance with ESMA Recommendations and the Prospectus Rules, only Proved and Probable Reserves have been valued.

1.3 Capability and Independence

This CPR was undertaken on behalf of MMC and MBGS by the signatories to this report, details of whose qualifications and experience are set out in **Annex A**. MMC and MBGS both operate as independent technical consultants providing resource evaluation, mining engineering and mine valuation services to the resources and financial services industry.

MMC and MBGS have both been commissioned as technical consultants to Prodeco for Calenturitas and La Jagua for a number of years and previously have produced JORC Code compliant Resources and Reserves Statements as well as Life of Mine ("*LOM*") plans for Prodeco. MMC/MBGS has also carried out assignments for potential investors for other nearby coal projects in the last three years. MMC/MBGS has considered the matter of potential conflict of interest concerning former work and former reviews and have concluded that they would not be conflicted in preparing this CPR, on the basis that it is being prepared as an independent report and their fees are not dependent on the outcome of the report.

None of MMC/MBGS or MMC/MBGS's staff or specialists who contributed to this report has any interest or entitlement, direct or indirect, in Glencore, Glencore International plc, Calenturitas, La Jagua or the outcome of this technical review in the contents of this CPR.

For the purposes of Prospectus Rule 5.5.3R(2) MMC and MBGS are responsible for this report as part of the Prospectus and declare that they have each taken all reasonable care to ensure that the information contained in this report is, to the best of their knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the Prospectus in compliance with item 1.2 of Annex I and item 1.2 of Annex III of the Prospectus Directive Regulation.

Drafts of this CPR report were provided to Prodeco and Glencore for review as to any material errors of fact, omissions or incorrect or unreasonable assumptions.

All opinions, findings and conclusions expressed in this CPR are those of MMC/MBGS (as relevant) except to the extent that such opinions, findings or conclusions are based upon, either in whole or in part, on information provided by Prodeco, Glencore or any 3rd parties.

1.4 Methodology

The reasonableness of the geological data and the technical assumptions used in Glencore's mine plans and financial models were the prime focus of this review.

The following points cover the main areas that the review focussed on and a brief description of the methodology used:

- Resources and Reserves: The JORC Code reports were reviewed for compliance and then the JORC Code totals were cross referenced to the sales tonnes in the business model;
- Mine Plans: Production assumptions, mining rate and production schedules were reviewed and matched against the Mine Plan model inputs;
- Capital and Operating Costs: The key inputs were cross referenced to an in-house MMC cost database for reasonableness; and
- Key Project Issues: Important issues which may have a material impact on the outcomes presented in the Mine Plan were identified during the review.

1.5 Technical Review Team

MMC and MBGS were joint project managers for this Independent Technical Review. A Technical Review Team (the "Team") was assembled including:

- Minarco-MineConsult ("MMC") – Joint project management, review of mining and coal reserves, and valuation of assets;
- McElroy Bryan Geology Services ("MBGS") – Joint project management, review of geology and coal resources, and coal quality;
- Bob Leach Pty Ltd ("B Leach") - Review of coal quality;
- Hansen Bailey Pty Ltd ("Hansen Bailey") – Review of environmental approvals and matters; and
- Inteplan Pty Limited – Review of infrastructure, including coal transport and Port.

We understand from discussions with Glencore that in parallel to these technical reviews, Glencore has commissioned reviews of the corporate, legal and marketing aspects of Prodeco. These reviews and their subject matter are not included in this CPR.

Qualifications of the team are listed in Annex A.

1.6 Site Inspection

In general, as part of ongoing technical consultants work for Prodeco, MMC, MBGS, B Leach and Inteplan have all visited the sites on numerous occasions and both signatories to this CPR have visited the mines on many occassions. More recently, for the specific purpose of this CPR, Inteplan and Hansen Bailey visited the sites in November 2010. MMC/MBGS believes the Technical Review Team is suitably familiar with the sites to act as Competent Persons.

1.7 Limitations and Exclusions

This CPR specifically excludes all aspects of legal issues, land titles and agreements, except such aspects as may directly influence technical, operational or cost issues. MMC/MBGS has not undertaken an evaluation of marketing or coal pricing forecasts. This CPR does not consider financial or commercial matters, including without limitation loan funding aspects, profit and loss, balance sheet, non-cash items, commodity prices, or exchange rates. MMC/MBGS reserves the right to change its view of any of the conclusions set out in this CPR should any of the fundamental information provided to MMC/MBGS materially change.

1.8 Materiality

MMC has adopted the Australian Accounting Standards Board AASB 1031 which proposes that the materiality of information or data can be assessed in terms of the extent to which its omission or inclusion could lead to changes in total value:

- equal to or less than five percent – immaterial;
- between five and ten percent – discretionary; and
- equal to or greater than ten percent – material.

These guidelines were used as a general guide. MMC/MBGS has not in all cases been able to determine the value impact of an issue when determining the materiality of an item.

1.9 Information Sources

The contents of this CPR have been created using data and information provided by or on behalf of Glencore. In MMC/MBGS's opinion, the information provided was reasonable and nothing discovered during the review suggested that there was any material error or misrepresentation in respect of that information. Information generated by third parties, consultants or contractors to Glencore has not been independently validated by MMC through the generation of new work or new data.

MMC accepts no liability for the accuracy or completeness of data and information provided to it by, or obtained by it from Glencore or any third parties, even if that data and information has been incorporated into or relied upon in creating this report. The report has been produced by MMC using information that has been provided to MMC as at the date stated on the cover page. MMC is under no obligation to update the information contained in the report at any time after the date shown on the cover page, though MMC reserves the right to change its view of any of the conclusions set out in this CPR should any of the fundamental information provided to MMC materially change.

1.10 Information About This Document

This CPR must be read in its entirety and must be read in light of the following.

- Its reliance upon information provided to MMC/MBGS by Prodeco, Glencore and others;
- The methodology and limitations and assumptions referred to throughout the report;
- The limited scope of the report; and
- Other relevant issues not within the scope of the report.

Save as provided under PR5.5.3(2) and to the fullest extent permitted under law, use of or reliance on this report by any third parties is at their sole risk and MMC/MBGS will not be liable for any liability, loss or damage suffered by a third party relying on this report regardless of the cause of action, whether breach of contract, tort (including negligence) or otherwise.

MMC/MBGS makes no warranty, express or implied in respect of this CPR, particularly with regard to any commercial investment decision made on the basis of this CPR. This CPR has been prepared without taking into account the objectives, financial situation or needs of any individual, entity or organization.

This document speaks only as of the date of the report and MMC/MBGS has no duty to update it.

1.11 Glossary of Terms

A glossary of terms is listed in Annex B.

1.12 Currency

All currency is United States dollars unless otherwise indicated.

1.13 Inherent Mining Risks

Coal mining is carried out in an environment where not all events are predictable.

Whilst an effective management team can identify the known risks and take measures to manage and mitigate those risks, there is still the possibility for unexpected and unpredictable events to occur. It is not possible therefore to totally remove 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.

It is therefore not possible to state with certainty, forward looking production and economic targets, as they are dependent on numerous factors that are beyond the control of MMC/MBCS and cannot be fully anticipated by MMC/MBGS. These factors include but are not limited to, site specific mining and geological conditions, the capabilities of management and employees, availability of funding to properly operate and capitalise the operation, variations in cost elements and market conditions, developing and operating the mine in an efficient manner. Unforeseen changes in legislation and new industry developments could also substantially alter the performance of any mining operation.

2. PRODECO OVERVIEW

MMC/MBGS is satisfied that Glencore management has established a capable management team at each operating asset. MMC/MBGS 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 life of mine plans are based on sound resources, sound technology, supportable production levels, and adequate infrastructure. MMC/MBGS found nothing during the preparation of this CPR which would have a material impact (as defined in Section 1.8) upon the LOM forecast production or capital or operating costs of the assets.

2.1 Description of Assets

Glencore, through its wholly owned subsidiary Prodeco, owns and operates two open cut coal mines in Colombia; the Calenturitas and the La Jagua coal mines. The mines are located in an active mining region of the Department of Cesar, Colombia, approximately 100 km south of the city of Valledupar. The Puerto Prodeco is located some 220 km to the northwest of the project site on Colombia's Caribbean coast as shown in **Figure 1**. The two mines are separated by approximately 20 km. Prodeco holds exploration and mining title over both coal deposits.

The Calenturitas mine is currently producing at approximately 8.5 Mtpa with plans to expand to approximately 14 Mtpa by 2015 with a life of mine to 2031. The La Jagua mine is currently producing at approximately 7 Mtpa with a life of mine to 2029.

The mining method is open cut mining. This is based on multi-seam, steep dip, truck and shovel open cut coal mining initially in strips to ex-pit dumps with a progression over time to haulback waste dumping in-pit. Small scale underground mining was undertaken at La Jagua but is no longer operating. Trials of highwall entry methods, such as auger mining, have been conducted at Calenturitas. The auger mining trial has been successfully completed and approximately 200kt of coal has been produced. This exercise has shown good roof stability in the auger holes, confirmed seam consistency and manageable methane gas levels were encountered giving early confidence for future plans to extract additional coal not included in this valuation.

Infrastructure exists at each deposit and consists of a mine camp and facilities, workshops, offices and coal handling facilities. A rail spur was completed in 2008 to replace the previous system of hauling the coal to the coast at Santa Marta by road trucks. Coal from the nearby La Jagua mine is hauled by road trucks to Calenturitas where it is blended and train loaded out to Puerto Prodeco. The mined coal is crushed and shipped to market without any additional washing/processing.

Prodeco owns and operates its own rail haulage and port facilities. The rail line concession is held by Fenoco in which Prodeco holds a 39.76% share.

Most coal is currently sold to the international market as a thermal coal with approximately 0.5 Mt to 1.5 Mt of La Jagua coal sold as high volatile Pulverized Coal Injection ("PCI"). The coal has a track record with recognition in the market and its energy and relatively low sulphur content makes it attractive in the market place. Some of the quality characteristics of the La Jagua coal have allowed sales into the high volatile PCI metallurgical coal markets. The coal is marketed by Glencore, the owner of Prodeco.

The general locations of Prodeco's assets are shown in **Figure 1** and the more specific locations within the relevant coalfields for the various assets are shown in **Figure 2**

A more detailed description of the assets is provided in **Section 3** and **4.**

2.2 Summary of Geology

The coal deposits are part of Tertiary coal bearing sediments preserved in the Cesar-Rancheria basin. The basin is limited tectonically by the Oca Fault in the north and the Bucaramanga-Santa Marta Fault in the south and west. Two other structural features control the basin limits, an igneous and metamorphic complex to the northwest (Sierra Nevada de Santamarta) and the Perija Hills to the east which comprises Jurassic and Cretaceous sediments. These hills are an extension of the eastern Andean Mountains of Colombia (Cordillera Oriental).

The basin is subdivided into the Rancheria Basin in the north where the Cerrejon Mine is located and the Cesar Basin in the south with the Calenturitas and La Jagua deposits. Continuity of the coal measures between the two sub-basins has not been demonstrated.

The Calenturitas deposit is part of a regional synclinal structure (La Loma Syncline) and subsequent NE trending thrust faulting has resulted in the current distribution of numerous coal deposits in that area. Those deposits are now the focus of a number of open cut operations such as Pribbenow and El Descanso (Drummond), La Francia (Goldman Sachs) and El Hatillo (Vale). The tectonic setting is predominantly compressive with NE-trending thrust faults the main structural features. Extensive 2D seismic surveys in the Cesar Basin over the last 30 years have clearly indicated the structural control governing the distribution of the coal measure strata.

The La Jagua coal deposit is a synclinal basin formation approximately 5 km long and 2 km wide. The deposit is multi seamed and steeply dipping on both the north-west and south-east flanks. The centre of the deposit is much flatter with dips up to 5°. On the basis of borehole and mining records to date, faulting is not common and no major structures have been identified.

Both deposits are characterised with multiple dipping seams of variable thickness and quality. **Figure 4** and **Figure 9** show cross sections of the coal deposits.

2.3 Summary of Resources and Reserves

MMC/MBGS is of the opinion that Glencore understands 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.

Glencore has standardised the collection and treatment of geological, geotechnical and coal quality data for each asset. Each coal mine has a comprehensive geological and resource assessment team and computerised database and geological model accessible to technical staff.

Glencore's focus on understanding the geology of each asset is evident in the relatively high proportion (87%) of the total coal resources which are classified as Measured and Indicated Resources. Consequently, Glencore can exploit a large Coal Reserve base and integrate long term planning options between the various assets with a reasonable level of confidence.

Coal resources for each mine 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 over the life of each project. Points of observation such as cored and non-cored drill holes, outcrops, geological mapping of open cut pits and previous underground mine workings and geophysical data 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, downhole geophysical logging and sonic acoustic scanners were used to establish evidence of coal 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 m 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.

JORC Code compliant Resources Statements were prepared for the assets as of 31st December 2010. The Reserves estimates for both assets were updated to the same date.

Proved and Probable Reserves are based on Measured and Indicated Resources and were estimated for each coal mine for which the appropriate level of planning has been carried out. Coal from each mine is not washed and hence no metallurgical factors were applied.

MMC/MBGS found that Glencore has developed mine layouts over areas of Measured and Indicated Resources, which generate forward schedules in the range of +20 years. This has been achieved by completing mining options studies and economic sensitivity analysis which optimise value whilst minimising mining risks.

The current Resources and Reserves estimates are summarised in **Table 2.1** following.

Table 2.1 – Summary of Resources and Reserves (as of 31st December 2010)

Mine Project	Measured Resources (Mt)	Indicated Resources (Mt)	Inferred Resources (Mt)	Total Resources (Mt)	Proved Reserves (Mt)	Probable Reserves (Mt)	Total Opencut Coal Reserves (Mt)
Calenturitas	170	160	70	400	113	96	209
La Jagua	117	23	-	140	106	22	128
Total	**287**	**183**	**70**	**540**	**219**	**118**	**337**

Note: Reserves are a subset of Resources and are included in the Resources estimate.

2.4 Mines and Projects

2.4.1 Mining Methods and Equipment

MMC/MBGS inspected operations at each coal mine. MMC/MBGS observed that each coal mine operator uses well maintained, modern mining equipment and technology and mining methods typical for the international coal industry and suited to the targeted resources. The open cut mining equipment comprises hydraulic excavators loading off highway rear dump trucks. Support equipment includes bulldozers, drills, water trucks and graders.

MMC/MBGS is satisfied that:

- the major plant items are suited to their intended application at each coal mine;
- plant is well maintained; and
- historical costs and projected costs for repair and maintenance of plant are reasonable.

Glencore forecast capital expenditure for major plant replacement is consistent with the age/condition of equipment and industry practice.

2.4.2 Production Levels

MMC/MBGS reviewed Glencore production forecasts for each coal mine. These forecasts are based on historical performance with increased production included only where clearly defined and realistic operating improvements or expansions have been identified and implemented. MMC/MBGS's review indicates that the overall production under Prodeco management will steadily increase in the period to 2016. This increase will be achieved through operating improvements plus additional output from the development of new mining areas and additional mining equipment. A summary of historical and planned production for the 5 year period from 2009 to 2014 is shown in **Table 2.2.**

Table 2.2 – Saleable Coal Production

Mine Project	2008 (Actual) Mt	2009 (Actual) Mt	2010 (Actual) Mt	2011 (Plan) Mt	2012 (Plan) Mt	2013 (Plan) Mt	2014 (Plan) Mt
Calenturitas	4.7	5.7	5.2	8.5	10.5	12.8	13.3
La Jagua	4.4	4.8	4.8	7.1	7.1	7.1	7.0
Total	**9.1**	**10.5**	**10.0**	**15.6**	**17.6**	**19.9**	**20.3**

MMC/MBGS is satisfied that Glencore production forecasts are realistic and achievable.

For the 2010 production year Prodeco are below budget forecasts. Actual production for 2010 at Calenturitas was 5.2Mt against a budget target of 7.2 Mt. Actual production for 2010 at La Jagua was 4.8 Mt against a budget target of 7.3 Mt.

The following points contributed to the 2010 production statistics:

- Higher than expected groundwater inflows from near surface alluvial aquifers in Sector A at Calenturitas impacted on operations. This issue is now better understood by management and appropriate action to mitigate the risks has been taken. Further, the mine plans and cost forecasts appropriately account for this risk.
- There was a 100% increase in mine operating hours lost to wet weather compared to what was budgeted. This was due to record high rainfall, particularly during the second half of the year. Although a risk exists of a repeat of the higher than average rainfall occurring MMC/MBGS do not believe this would be an annual occurence which would impact on long term forecasts.
- The collective bargaining process in Colombia involves direct negotiations between the parties that can last for up to 40 calendar days. If no agreement is reached during this period, the union may opt to call a strike or to go to arbitration. In 2010 the collective bargaining negotiation with the CDJ union at La Jagua did not result in an agreement after the 40 day period and subsequently the union called a strike which lasted for an additional 38 days. At the end of the strike period an agreement was reached and a new collective bargaining agreement was reached which is effective until 2012.
- Due to high coal inventories in early 2010, Prodeco delayed the purchase of additional waste production fleet. Inventories were depleted when the high rainfall occurredhowever the additional fleet was not available to catch up production.

2.4.3 Management

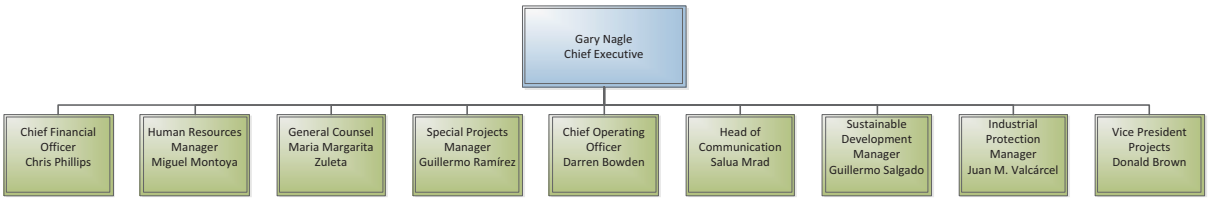
During the conduct of this review, MMC/MBGS project team members were in regular contact and have held numerous discussions with all levels of Prodeco management. Based on this contact, MMC/MBGS is satisfied that:

- Prodeco has established a capable management team at each of its coal mines; and

- coal mine management understands the key drivers and risks at each coal mine and have developed credible mine operation plans that address these issues.

A technical services group within Prodeco coordinates mine planning. This group comprises business development, geological, mining engineering and environmental management. 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.

The reported organisation structure of Prodeco is shown below.



2.4.4 Manning Numbers

Table 2.3 summaries the number of employees and contractors at each of the key project locations.

Table 2.3 – Current Manning Numbers

	La Jagua	Calenturiatas	Port	Rail	Admin	Total
Employees	866	808	389	145	206	**2,414**
Contractors	1,222	1,143	505	42	30	**2,942**
Total	**2,088**	**1,951**	**894**	**187**	**236**	**5,356**

2.4.5 Health and Safety

MMC/MBGS reviewed health and safety management systems and their implementation. MMC/MBGS found that an executive safety committee sets health and safety management policy within Prodeco. Prodeco has appointed a Prodeco 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.

Prodeco undertakes regular audits, both internal and external, at each coal mine. These audits monitor and identify any improvement needs within the safety management systems.

As noted above, Prodeco 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 2010 for Prodeco coal mines, expressed as lost time injury frequency rate, is below the average for the national coal industry.

2.4.6 Coal Processing

MMC/MBGS observed that all ROM coal is crushed at each mine and is the loaded into trucks or trains without further processing. Coal is sold "unwashed", meaning there is no metallurgical treatment required to achieve a saleable product. The yield is therefore 100%.

2.4.7 Transport and Port

Coal from the operating mines of Calenturitas and La Jagua is exported primarily through the port of Puerto Prodeco with some shipments through the Carbosan Port at Santa Marta. The coal is railed approximately 220 km to Puerto Prodeco in train sets owned and operated by Prodeco. The rail line is operated and maintained by Fenoco which has been granted the concession from Chiriguana to Santa Marta. Fenoco is owned by the producing coal companies in the Cesar region with Prodeco holding a 39.76% share. Drummond Coal owns 40.96% of Fenoco with the remainder held by Vale, Carboandes and Carbones del Cesar.

Puerto Prodeco is owned and operated by Prodeco and has the capacity to handle up to 17 Mtpa. The coal loading in this area of Colombia is currently undertaken by barge loading and crane transfer to ships. The Colombian Government has decreed that all coal ports are to implement direct ship loading techniques. The government has granted Prodeco a concession in Cienaga and Prodeco are undertaking a project to develop a new coal loading terminal, Puerto Nuevo, scheduled to commence operations in 2013. At that time the existing Puerto Prodeco will be closed down.

The rail and port operations of Prodeco have been planned to match the forecast throughput and Prodeco has exercised control of its future by:

- investing in Fenoco;
- developing facilities at La Jagua and Calenturitas to ensure the trains can be loaded as required;
- establishing its own rail operation;
- expanding the existing port to cope with the growth; and
- constructing a new port to meet forecast throughput and government requirements.

The assets are in generally good condition, and appear to be well maintained and operated.

2.5 Environmental Issues and Management

Hansen Bailey has carried out an environmental review of Glencore's Colombian coal assets including key environmental approval documentation pertaining to its mining operations and port facilities. They have determined environmental management at Prodeco is undertaken generally in accordance with its Environmental Policy. The Environmental Policy forms the foundation of its Environmental Management System (EMS) and describes its vision of environmental management for the mining operations.

The EMS's developed for the Prodeco operations are based on the principles of the ISO14001 international environmental standard. It should be noted that the port facility (Puerto Prodeco) is certified to ISO14001.

Prodeco has undertaken an environmental risk assessment to identify the potential high risk aspects and impacts associated with its activities. Relevant Environmental Management Plans ("EMPs") have been developed to mitigate potential adverse impacts as described in its EMP document. There was evidence of environmental training and general awareness of environmental issues amongst employees.

Environmental monitoring is undertaken in accordance with the relevant EMP which is approved by the Ministry of Environment, Housing and Land Development ("MAVDT"). MAVDT undertakes several site visits per year and reviews the environmental performance of the site against relevant criteria. Prodeco has established environmental monitoring systems to measure its performance and receives regular monthly reports on environmental aspects including surface water, groundwater and ecology. Air quality monitoring is managed by the Regional Environmental Authority ("REA").

There are currently five operating coal mines in the area surrounding Calenturitas, including El Hatillo, Pribbenow, El Descanso, La Francia and Calenturitas. REA commissioned a cumulative air quality impact assessment in 2009 to investigate the potential impacts on local residents and communities located in the area. Results from the assessment indicated that cumulative impacts from the five existing operating mines would adversely impact three local communities (Boqueron, Plan Bonito and El Hatillo). The REA has recommended that the identified communities to be impacted by mining be relocated. Discussions regarding the relocation strategy and responsibility are ongoing and these had not been finalised at the time of this review. A preliminary proposal outlining the shared responsibility between the five mining operations in the area has been put forward by REA. The preliminary proposal includes a methodology to determine the level of contribution of each mining operation. Calenturitas will be required to contribute to the relocation of these communities. The cost of the relocation has been included in the valuation of Calenturitas.

A Biodiversity Offset Management Plan has been developed and will be implemented over the life of the mining projects. It is anticipated that Calenturitas will be required to contribute up to USD 21 Million and La Jagua up to USD 15 Million towards the implementation of the Biodiversity Offset Strategy.

Prodeco has developed Mine Closure Plans for the operations which have been approved by MAVDT. The Mine Closure Plan is reviewed every five years in accordance with MAVDT. There is no rehabilitation security bond required for either La Jagua or Calenturitas.

MMC/MBGS found that Prodeco has developed environmental management systems generally based on international standards. The mines were inspected as part of this review. These inspections found:

- a high level of environmental awareness among senior Prodeco and coal mine staff;
- clear identification of most environmental issues;
- board-level reporting;
- active resolution of identified issues which could have material implications for mining; and
- a high standard of housekeeping.

2.6 Statutory Authorisations

Hansen Bailey reviewed the status of the statutory authorisations for the port facilities and mining operations. Prodeco 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 2.4**.

Table 2.4 – Prodeco Operations Approvals and Status

Doc.	Detail	Granted	Auth.	Comment	Expiry
CALENTURITAS					
1.	Mining Lease (ML) 044/89	03/07/2005	Ministry of Mining and Energy (MME)	Mining Authority over 6,677 ha	03/07/2035
2.	Works Program (PTI)	2005	MME	Approval to extract up to 7 Million tonnes per annum (Mtpa) ROM Coal	Expires with ML
3.	PTI - Modification	Dec 2010	MME	Proposal to extract up to 14.2 Mtpa ROM coal by 2019, submitted in June 2010, additional information provided in October 2010	Will expire with ML 044/89
4.	Environmental Management Plan	2009	MAVDT	Includes Environmental Management Plans for each aspect of the mining operation	Expires with ML
5.	Environmental Pollution Licence	6/03/2009	MAVDT	The Environmental Pollution Licence is consistent with the EMP's approval No. 0464	Expires with ML
LA JAGUA					
6.	ML - CDJ 285-95	24/04/1997	MME	Mining Authority over area identified as CDJ	23/04/2027
7.	ML - DKP 141	17/12/2004	MME	Mining Authority over area identified as DKP	17/12/2034
8.	ML - HKT 08031	11/11/2008	MME	Mining Authority over area identified as HKT	10/11/2038
9.	ML - CMU 109-90	25/09/1991	MME	Mining Authority over area identified as CMU	24/09/2014
10.	ML - CET 132-92	23/09/1998	MME	Mining Authority over area identified as CET	23/10/2028
11.	PTI	12/04/2010	MME	PTI approved in letter from MME reference 006954 for up to 7 Mtpa ROM coal from 2010 to 2027	Expires with relevant ML
12.	Environmental Management Plan	09/2008	MAVDT	Includes 18 Environmental Management Plans for each aspect of the mining operation	Expires with relevant ML
13.	Environmental Pollution Licence	18/12/2008	MAVDT	The Environmental Pollution Licence is consistent with the EMP's approval No. 2375	Expires with relevant ML
PORT PRODECO					
14.	Environmental Pollution Licence	28/05/2009	MAVDT	License Number 983	Expires with the Port Concession
15.	Port Concession Resolution 097	1/03/2010	MME	Provides for the ongoing use of the Port Facility, MME audit every 6 months to assess progress of New Port	1/03/2011
NEW PORT					
16.	Environmental Pollution Licence 0447	5/03/2010	MAVDT	Provides approval of phase 1 up to a capacity of 35 Mtpa product coal, original Environmental Pollution Licence 0435 dated 02/03/09 modified	Expires with the Port Concession
17.	Port Concession, Resolution 333	4/08/2010	MME	Approval for terrestrial and marine based activities	n/a

Table 2.5 summarises the terminology used in Colombia and for this review.

Table 2.5 – Colombian Terminology

Item	Colombian (Spanish)	Abbreviation
Mining Lease	Titulo Minero	ML
Environmental Management Plan	Plan de Manejo Ambiental	EMP
Environmental Pollution Licence	Licencia Ambiental	EPL
Ministry of Mining and Energy	Ministerio de Minas y Energía	MME
Ministry of Environment, Housing and Land Development	Ministerio de Ambiente, Vivienda Y Desarrollo Territorial	MAVDT
Works Program	Programa de Trabajos e Inversiones	PTI
Regional Environmental Authority	Corpocesar an Corpamag	REA

In MMC/MBGS'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 generally operated in accordance with statutory authorisations and are not in material breach of those statutory authorisations. However, there was evidence that issues raised and recommendations made in previous government audits had not been fully implemented at Calenturitas. Prodeco are currently working through the outstanding recommendations. These outstanding items are minor and are not considered material; 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

A summary of historical cash cost for each of the operations from 2008 to 2010 are shown in **Table 2.6** and **Table 2.7.**

Table 2.6 – Calenturitas Historic Operating Cash Costs

Activity	2008	2009	2010
Waste Mined (kbcm)	38,334	54,434	42,491[(1)]
Coal Mined (kt)	4,698	5,700	5,234
Strip Ratio	8.2	9.6	8.1
Waste removal ($/t)	17.61	19.88	19.52
Coal mining ($/t)	1.44	1.36	1.66
Mining support ($/t)	4.51	5.24	7.87
Coal handling ($/t)	0.81	0.41	0.49
Admin & Infrastructure ($/t)	1.39	1.63	2.19
Contractor ($/t)	0.04	0.00	0.00
Rail & transport ($/t)	9.38	6.18	6.08
Port ($/t)	5.29	5.47	4.81
Royalty ($/t)	11.35	11.72	6.53
HO & Marketing ($/t)	1.66	1.51	2.24
Total Operating Cost	**53.48**	**53.40**	**51.39**

Note (1): Excludes Boxcut of 8,474 kbcm

Table 2.7 – La Jagua Historic Operating Costs

Activity	2008	2009	2010
Waste Mined (kbcm)	23,616	36,990	30,829
Coal Mined (kt)	4,366	4,787	4,808
Strip Ratio	5.4	7.7	6.4
Waste removal ($/t)	12.76	17.40	21.76
Coal mining ($/t)	1.73	0.95	2.03
Mining support ($/t)	4.96	6.56	7.37
Coal handling ($/t)	1.16	1.34	1.48
Admin & Infrastructure ($/t)	2.06	2.54	3.02
Rail & transport ($/t)	16.71	10.39	9.74
Port ($/t)	5.23	5.37	4.78
Royalty ($/t)	6.26	6.24	4.33
HO & Marketing ($/t)	1.36	1.29	1.52
Total Operating Cost	**52.23**	**52.08**	**56.03**

Prodeco gave MMC/MBGS their current Business Financial Model for review and for use in generating valuations for Calenturitas and La Jagua. The Model is set up to value Calenturitas and La Jagua separately, or both Calenturitas and La Jagua as combined joint operations.

The Business Model is a time based spreadsheet model, allowing for operations from 2011 to 2030 inclusive with yearly time increments. In summary, the Business Model allows for:

- production schedules (mined, railed, shipped);
- mine equipment fleets, operating hours and productivities;
- labour requirements and hours;
- build up of all mine operating costs;
- coal rail, transport and port operating costs;
- equipment capital costs; both initial and replacements;
- non-mining capital costs (infrastructure, coal handling, administration, contractor mobilization);
- coal stocks and working capital calculations;
- depreciation and tax calculations;
- coal pricing and revenues;
- royalty;
- cash flows; and
- discounted cash flow ("*DCF*") and net present value ("*NPV*") analysis.

A summary of life-of-mine (LOM) average operating costs is given in **Table 2.8**.

Table 2.8 – Average LOM Operating Cost

Activity	Calenturitas (US$/t)	La Jagua (US$/t)	Combined (US$/t)
Waste removal	$28.50	$20.22	$25.30
Coal mining	$3.08	$2.66	$2.91
Mining support	$3.15	$3.73	$3.38
Coal handling	$1.04	$0.75	$1.02
Admin & Infrastructure	$1.32	$2.98	$1.96
Rail & transport	$3.35	$5.78	$4.09
Port	$1.61	$1.90	$1.79
Royalty	$10.97	$11.03	$11.01
HO & Marketing	$0.96	$1.40	$1.14
Total Operating Cost	**$53.99**	**$50.46**	**$52.60**

In MMC/MBGS's opinion:

- the assumptions used in developing Prodeco's financial forecasts are reasonable; and
- the operating cost forecasts are realistic and achievable.

2.7.2 Capital Expenditure

Capital costs for each of Calenturitas and La Jagua were reviewed. The term "Initial Capital" refers to the investment required to bring the operations to their full forecast production level. This is spread over several years to match the build up and construction period. Replacement capital allows for the fact that the equipment life is shorter than the mine life and therefore when it is worn out allowance has been made in the model to purchase new equipment. Sustaining capital is a more general allowance for smaller capital items of lower cost (for example computers) that is required on an ongoing basis. A summary of all capital costs is given in **Table 2.9**.

Table 2.9 – Capital Cost Estimates (US$k)

Item	Calenturitas (kUS$)	La Jagua (kUS$)	Combined (kUS$)
Intial Capital			
Waste Removal	$267,443	$50,584	$318,028
Coal Mining	$26,454	$4,620	$31,074
Mining Support	$10,675	$7,347	$18,022
Coal Handling	$23,933	$21,637	$45,570
Admin & Infrastructure	$24,735	$24,567	$49,302
Rail & Transport	$9,061	$4,539	$13,600
Port	$335,233	$167,904	$503,137
HO & Admin Support	$4,331	$2,169	$6,500
Total Initial Capital	$701,866	$283,367	$985,233
Replacement Capital			
Waste Removal	$622,488	$197,077	$819,565
Coal Mining	$87,183	$28,419	$115,602
Mining Support	$54,613	$24,514	$79,127
Total Replacements	$764,284	$250,010	$1,014,295
Sustaining Capital			
Mining Support	$72,000	$71,250	$143,250
Coal Handling	$18,000	$18,000	$36,000
Admin & Infrastructure	$17,600	$26,500	$44,100
Rail & Transport	$3,798	$1,902	$5,700
Port	$3,398	$1,702	$5,100
HO & Admin Support	$12,659	$6,341	$19,000
Total Sustaining	$127,455	$125,695	$253,150
Total Capital	$1,593,605	$659,072	$2,252,677

These expenditure estimates are planned to support each coal mine and to fund the development of projects and expansions.

MMC/MBGS found that capital expenditure for approved projects and coal mine expansions is supported by the appropriate level of feasibility study and engineering design.

The capital allowances made by Prodeco in the forecasts are appropriate and are in line with industry norms.

In MMC/MBGS's opinion, Prodeco'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 Colombia.

2.8 Issues and Risks

Coal mining has inherent risk, which is a function of the geological setting and mining methods. These inherent risks can be mitigated by sound management, however they cannot be totally removed. Prodeco has minimised the potential impact of these inherent risks to their overall business by building two mines with multiple pits and also by controlling the transport chain and over time improving this so it is more efficient and less prone to disruption.

MMC note the following potential issues:

- The depth of the Calenturitas pit (> 300 m) increases the risk of potential geotechnical issues in highwall and lowwall stability;
- Due to the proximity of the mines to several rivers the potential effects of flooding causing ingress of water are increased. Prodeco have reduced the risk through the construction of bunds around the mining areas;
- Failure to meet planned production levels caused by events such as higher than average rainfall or strikes will impact on cash flows;

- Geological risk is always present however with progressive exploration drilling and increasing in-pit exposures this risk is constantly being reduced;
- Political activity and government policies;
- Risk in the production build up period. Some items that may impact on the rate of production build up include construction of the new port facility, delivery of new mining equipment or staffing shortages; and
- Prodeco do not currently have approvals in place to implement the final stage of the river diversion at Calenturitas. Failure to gain approvals will impact on mining in Pit B.

MMC/MBGS is satisfied that none of these risks presents any significant threat to the assets of Prodeco because Prodeco:

- is aware of them;
- has addressed and is continuing to address them through prudent and diligent management; and/or
- has made appropriate allowance in its cash flow forecasts.

2.9 Synergies

There are significant synergy opportunities available within the Prodeco operations. In a general sense, these include economies of scale, sharing of expertise and blending synergies, all of which have been discussed elsewhere. Prodeco has realised these opportunities through:

- a flat management structure with low head office overheads. MMC/MBGS 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; and
- integrated production and marketing allowing key productivity drivers at each coal mine to be optimised with a focus on Prodeco's markets.

2.10 Sales and Marketing

MMC/MBGS reviewed exploration data, coal quality analysis, and mining practices and concluded that forecast product quality can be achieved.

The quality of the coal produced by Prodeco is typical for the relevant coal field. The rank of the coal is medium to high volatile bituminous. The coal mines have flexibility to produce to a broad range of specifications by controlling the seam mined, the mining horizon and coal blending. The transport process allows Prodeco to buy in coal and blend products to meet customer specification.

All coal from Calenturitas and La Jagua is sold raw into the export market with a major portion sold blended from both mines to meet a general energy target ranging from 11,100 Btu/lb to 11,500 Btu/lb on a gross, as received (gar) basis. Most coal from La Jagua however, is sold into higher energy markets above 12,000 Btu/lb gar.

Both coal sources have relatively similar thermal properties:

- Total sulphur typically 0.5% to 0.7% gar though both mines have some coal with sulphur in excess of 1% which is blended down to meet specifications. In addition to the high sulphur seams there are also coals with sulphur 0.4% or below;
- Chlorine 0.02% to 0.04% is low to moderate;
- HGI 44 – 48 indicates the coal is moderately hard but this does not impact adversely on grindability when combusted;
- Nitrogen 1.5% to 1.7% is moderate and acceptable in most export markets;
- Ash fusion (reducing condition) Initial Deformation Temperature (IDT) 1250ºC to 1,450 ºC and Flow Temperature 1,450ºC to 1,550ºC. La Jagua has slightly superior ash fusion characteristics likely due to lower calcium and sodium oxides in ash (1% to 2.5%) and (0.5% to 0.8%) respectively compared to Calenturitas (2% to 4%) and (0.8% to 1.5%) respectively though both scenarios are acceptable; and
- Silicon, aluminium and iron oxides in ash are respectively 50% - 57%, 18% - 23%, 9% - 12% for both mines.

2.11 Valuation of Reserves

2.11.1 Methodology and Assumptions

Each of the coal mines that contributes to Prodeco's cash flow forecasts have been valued separately and have been valued using discounted cash flow methods. The cash flows used are those provided by Prodeco in their LOM schedules

as modified by MMC/MBGS to allow for CPR specific requirements such as valuing only reserves and valuing Proved and Probable Reserves separately.

The key valuation assumptions are as follows:

- cash flows are ungeared and unescalated and are real values;
- cash flows have been discounted mid year;
- the valuation is carried out on real post-tax cash flows;
- cash flows have been allocated to Proved and Probable Reserves and valued separately;
- post tax real discount rates for a range of discount rates of 8% to 12% have been applied;
- long term coal prices were provided by Glencore and checked for reasonableness;
- it is assumed that all coal mined is processed and sold in the same year;
- rehabilitation is concurrent with mining and has been allowed for in the operating cost estimates;
- valuation is in USD; and
- plant has 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, and the coal mines and projects have in general long lives, the value of the plant and equipment is therefore included in the Reserves value. Any residual value is not considered to be material.

In the Prodeco Business Model coal revenues are estimated by applying assumed future benchmark coal prices to the annual coal quantities given in the production schedules and adjusting for the annual specific energy of the mined coals. MMC/MBGS is not aware of any independent coal pricing and/or marketing studies being commissioned by Prodeco.

Based on specific energy and freight advantages coal sold from La Jagua generally experiences approximately a $6 premium above the bench mark price when sold into the thermal coal market. The premium is usually higher when the La Jagua coal is sold into the metallurgical market.

The benchmark prices and the adjusted prices for each deposit are given in **Table 2.10**.

Table 2.10 – Coal Pricing

Sector	2011	2012	2013	2014	2015	LT
Bench Mark Price						
La Jagua (@12,400BTU)	101.54	115.83	115.09	123.76	124.00	102.00
Calenturitas (@11,300 BTU)	82.35	95.57	95.67	105.99	106.00	85.75
Average Coal Price						
La Jagua	98.68	114.32	112.28	121.74	121.28	96.32
Calenturitas	80.36	93.09	94.00	103.99	104.48	81.59
Average Coal Price	**88.70**	**101.64**	**100.54**	**110.12**	**110.23**	88.38

Supplied by Glencore

2.11.2 Valuations

Based on the methodology and assumptions set out in **Section 2.11.1**, a summary of the NPV valuation carried out by MMC/MBGS for a range of discount rates is included in **Table 2.11.**

A summary of financial analysis for both projects separately and for the combined projects is given in **Table 2.11**.

Table 2.11 – Summary of Financial Analysis

Sector	Units	Calenturitas	La Jagua	Combined
Production				
Peak Coal	Mtpa	~14	~ 7.0	~ 21
JORC Reserve	Mt	209	128	337
Strip Ratio	bcm/t	10.0:1	6.5:1	8.7:1
Operating Costs				
Average	US$/t	$53.99	$50.46	$52.60
Capital Costs				
Life of Mine	US$ M	$1,594	$659	$2,253
Net Present Value				
@ 8% DR	US$ M	$2,786	$2,780	$5,566
@ 10% DR	US$ M	$2,439	$2,446	$4,885
@ 12% DR	US$ M	$2,148	$2,172	$4,320

Table 2.12 shows the attributable value estimated for both Proved and Probable Reserves for each coal mine and project.

Table 2.12 – Valuation of Attributable Reserves @ 10% DR

	Proved Reserve (US$M)	Probable Reserve (US$M)	Total Open Cut Coal Reserve (US$M)
La Jagua	$2,089	$357	$2,446
Calenturitas	$1,775	$664	$2,439
Valuation	**$3,864**	**$1,021**	**$4,885**

2.11.3 Sensitivity Analysis

The values of the coal mines have been tested seperately for sensitivity to movements in the key parameters of operating cost, production, capital cost and coal price.

- Operating Costs - Forecast operating costs are supported by operating history but the mine is expanding and a new port is yet to be built and therefore a 10% 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 Prodeco'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 - Prodeco 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; and
- 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. A 15% sensitivity is considered appropriate for export prices.

A summary of the effect of sensitivity of the valuation of reserves to these variables is included in **Table 2.13.**

Table 2.13 – Sensitivity of Attributable Reserves Valuation

	Base Case Total Value US$M	Operating Cost (+10%) US$M	Production (-10%) US$M	Capital Cost (+25%) US$M	Coal Price (-15%) US$M
Valuation	$4,885	$4,187	$4,052	$4,641	$3,298

2.12 Summary of Conclusions

Table 2.14 – Summary Table – Group Level

	2008A	2009A	2010A	2011E	2012E	2013E	2014E	2015E
Capacity (Mt)	10.1	12.1	14.5	15.6	17.6	19.9	20.3	20.7
Production (Mt)								
Own Mine	9.1	10.5	10.0	15.6	17.6	19.9	20.3	20.7
Third party	1.4	1.0	0.2	-	-	-	-	-
Saleable (Mt)	10.6	10.4	11.7	15.6	17.6	19.9	20.3	20.7
Cash Costs excl. Royalty (US$m)	398.6	450.0	501.0	807.7	826.3	810.6	849.7	854.8
Royalty (US$m)	80.7	96.7	55.0	142.6	194.8	225.4	280.2	276.8
Depreciation & amortisation (US$m)**	77.1	99.5	104.5	125.0	132.7	140.5	153.4	158.7
Tax Rate (%)	12.04***	-9.81***	17.51***	33.0	33.0	33.0	33.0	33.0
Capex (US$m)								
Sustaining	11.7	4.7	7.4	14.4	1.5	1.0	15.0	15.0
Expansionary	296.7	237.0	269.3	564.4	256.3	80.6	102.6	100.4

*** IFRS accounting (not tax)*

*** Effective rate

Table 2.15 – Summary Table – Calenturitas

	2008A	2009A	2010A	2011E	2012E	2013E	2014E	2015E
Capacity (t)	5.5	7.1	7.2	8.5	10.5	12.8	13.3	13.6
Production (t)								
Own Mine	4.7	5.7	5.2	8.5	10.5	12.8	13.3	13.6
Saleable (t)	4.7	4.7	6.3	8.5	10.5	12.8	13.3	13.6
Cash Costs excl. Royalty (US$m)	197.9	237.6	233.7	481.1	500.9	506.1	552.9	573.6
Royalty (US$m)	53.3	66.8	34.2	76.2	117.7	150.8	182.4	191.8

Table 2.16 – Summary Table – La Jagua

	2008A	2009A	2010A	2011E	2012E	2013E	2014E	2015E
Capacity (t)	4.6	5.0	7.3	7.1	7.1	7.1	7.0	7.1
Production (t)								
Own Mine	4.4	4.8	4.8	7.1	7.1	7.1	7.0	7.1
Saleable (t)	4.5	4.7	5.0	7.1	7.1	7.1	7.0	7.1
Cash Costs excl. Royalty (US$m)	200.7	219.4	246.2	326.6	325.4	304.5	296.8	281.2
Royalty (US$m)	27.3	29.9	20.8	66.4	77.1	74.6	97.8	85.0

MMC/MBGS has reviewed each of the Prodeco assets and has undertaken a valuation of the operating assets included in Prodeco's cash flow forecasts. MMC/MBGS concludes from this review:

- no material flaws, errors or omissions on the technical aspects of the Project were discovered during the review;
- the technical information reviewed is considered reasonable and has been prepared by professionals using appropriate software and industry standards;
- the geological and geotechnical understanding is of a sufficient level to support short, medium and long-term planning as appropriate;
- relevant miing authorities and environmental approvals are in place and new approvals are sufficiently advanced to achieve the proposed future production targets;
- the mine plans appropriately reflect geological and geotechnical understanding and account for predicted mining hazards;
- Prodeco's mining equipment (either in place or planned in the capital forecasts) is suited to its mine plans and supports the production levels forecast;
- the assumptions used in estimating coal and waste production volumes, working room, mining losses and dilutions are appropriate and reasonable;
- coal handling and other infrastructure including rail and port are capable of supplying appropriate quality products to satisfy the export markets at the forecast volumes;
- environmental issues are generally well managed and there are no issues that could significantly impede production nor are any prosecutions pending;
- the assumptions used in estimating operating costs are appropriate and reasonable, covering the spectrum of mining, processing, coal transport, and site administration associated in getting the coal to the point of sale;
- capital costs used in the financial models reflect the mine plans, development and construction schedules and the forecast production levels;
- key risks identified by MMC/MBGS 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.

MMC/MBGS is of the opinion that the Colombian coal assets of Prodeco:

- represent a significant component of the Colombian coal industry;

- have mine plans over areas of Measured and Indicated Resources which generate forward schedules for more than 19 years;
- have a total value of Proved and Probable Reserves of approximately USD 4,885 million with 75% of this value associated with Proved Reserves; and
- have value that is most sensitive to changes in coal price with a 15% reduction in coal price decreasing reserve value by over 32 % to USD 3,298 million.

3. CALENTURITAS COAL MINE

3.1 Description

Calenturitas commenced operation over 10 years ago but only established a box cut with the mine remaining on a "care and maintenance" basis for a number of years. Full scale production re-commenced in early 2004 with the establishment of a strip mine on the eastern subcrop of the coal deposit.

The mining rate in 2011 is planned for 8.5 Mtpa increasing to approximately 14 Mtpa by 2015. This involves opening up and developing three active pits (called Sectors A, B and C) to provide the working area required to support this mining rate. This development strategy also ameliorates many of the possible mining risks such as flooding, short term geological issues and geotechnical instability. It also allows for blending of the different seams to provide uniform quality.

The Calenturitas River meandered across the northern part of the deposit from northeast to southwest and has been diverted in order to extract the coal. Infrastructure including workshops, offices and coal handling facilities is located in the central part of the deposit above the deeper coal.

The Calenturitas site visit confirmed the following:

- the equipment is owned and managed by Prodeco;
- some contractors are used for maintenance (such as Chaneme and Gecolsa which is known as a "MARC" or maintenance and repair contract);
- stage 1 of the river diversion, which covers the current mining limits of Sector A is in place. A second diversion is required for the mining of the southern portion of Sector B. Approvals for the second diversion have not been granted;
- sufficient land has now been purchased for the operational requirements;
- the railway loading facility is installed and working;
- Sector C is fully developed with haulback in to in-pit dumps;
- Sector A is being opened up;
- Sector B has yet to commence;
- additional equipment is required for the mine expansion; and
- new offices and workshops have just been completed.

3.2 Maps and Plans

The regional location of the mine is shown on **Figure 1**. Typical stratigraphy and a cross section showing the geological structure is shown on **Figures 3** to **Figure 4**.

3.3 Geology

3.3.1 Regional Geology

The Calenturitas coal deposit is part of Tertiary coal-bearing sediments preserved in the Cesar-Rancheria Basin. This basin is limited tectonically by the Oca Fault in the north and the Bucaramanga-Santa Marta Fault in the south and west. Two other structural settings control the basin limits, the igneous and metamorphic complex of Sierra Nevada de Santa Marta to the north and the Serrania de Perija to the southeast. These mountain ranges are an extension of Colombia's Eastern Cordillera.

The basin is subdivided into the Rancheria Basin in the north where Cerrejon Mine is located and Cesar Basin in the south which contains La Jagua and Calenturitas mines. Continuity of coal measures between the two sub-basins has not been demonstrated.

Outcrop in the Cesar-Rancheria Basin ranges from Jurassic to Quaternary in age. The unit containing the main coal seams is the Los Cuervos Formation of Palaeocene to early Eocene age. Los Cuervos Formation conformably overlies the Barco Formation which consists of massive sandstone units and the coal-bearing Los Cuervos Formation is unconformably overlain in some areas by coarse-grained sediments of the Cuesta Formation. This unconformable surface does not erode coal measures in the Calenturitas lease area, however in some areas to the west and southwest of Calenturitas, erosion of coal measure strata is apparent on the basis of seismic and borehole information. Alluvial sediments overly the coal-bearing strata at Calenturitas and these sediments are predominantly fine to coarse grained sand ranging from 5 m to 40 m thick. The Los Cuervos Formation is between 250 m and 1,600 m thick.

The tectonic setting is predominantly compressive with northeast trending thrust faults that divide the basin into a number of northeast-oriented elongate blocks within which the strata have been folded with the Los Cuervos coal seams brought

up to the surface by the thrust faults. (see **Figure 2**). Most of these blocks are the focus of a number of open cut operations such as Pribbenow, El Descanso, La Francia, El Hatillo, Calenturitas and La Jagua.

Extensive 2D seismic surveys have identified three main thrust structures that govern the distribution of coal measure strata into structural blocks – El Hatillo Fault; La Loma Fault; El Tigre Fault. Within each structural block, the disposition of the coal seams is controlled by the main fold structures – El Boqueron Syncline; La Loma Syncline (Calenturitas Mine); El Descanso Syncline; La Jagua Syncline.

3.3.2 Site Geology

The Calenturitas coal deposit occurs within a northeast-trending asymmetrical syncline, the axis of which plunges at less than 10º towards the southwest (see **Figure 2**). Seams dip at 5º to 10º on the northeastern nose of the syncline (Sector A). Seam dips increase along the limbs of the syncline to 18º along the eastern limb (Sectors C and D) and up to 55º on the western limb (Sector B). Coal seams are relatively flat-lying in the vicinity of the synclinal axis with dips less than 10º observed on seismic lines crossing the area.

The Calenturitas deposit is divided into sectors A to D based on geological/geographical and mining characteristics. The majority of exploration drilling has focussed on the northern and eastern margins (Sectors A, C and D) of the deposit and as a result, the seams in those areas are mostly classified as Measured Resources. Coal resources in the western area (Sector B) tend to be classified as Indicated or Inferred because of the effect of steeply dipping strata and further drilling is required in that area to elevate resource to Measured status. Resources within the deeper area of the syncline (close to the axis) have not been classified due to the lack of drill hole information in this area and these resources are not included in the current Calenturitas life of mine plan. These resources will be the subject of studies related to the potential for future underground mining.

Figure 4 shows typical cross-sections through the deposit

3.3.3 Stratigraphy

The Los Cuervos Formation comprises three stratigraphic units; a lower unit containing interbedded claystone, siltstone and thin coal bands; a middle unit that contains the economic coal seams; an upper unit of primarily fine to medium grained sandstone interbedded with siltstones. A typical stratigraphic column for the Cesar Basin and geology of Calenturitas is presented in **Figure 3** shows how the coal seams at Calenturitas are correlated with those of the La Jagua deposit.

At Calenturitas, a total of 47 seams sub-crop along the western and eastern limbs of the syncline (C420 to C100). Seam C420 is the uppermost coal seam and Seam C199 is at the base of the main economic sequence, a stratigraphic interval approximately 245 m thick with 30 m of cumulative coal thickness. Seams C200 and C270 Upper and Lower are the thickest coal seams (average 4 m) and Seams C330, C310, C270, C260, C250, C210 and C200 contain an intra-seam stone parting greater than 0.10 m thick (see **Figure 5**). Some of the seams below Seam C199 (down to Seam C130) are considered to be economically mineable in parts of the deposit thickness. There are a number of thin seams below C130 however they tend to be quite thin (<0.5 m) and as they appear to have no economic significance, they have not been included in the Resource estimate.

3.3.4 Structure

The Calenturitas coal deposit is in an asymmetrical syncline aligned northeast to southwest and plunging at a shallow (<10°) angle towards the southwest. The seams dip at 5° to 10° on the northeastern nose of the syncline ("*Sector A*"). Seam dips increase along the limbs of the syncline to 14° and 18° along the eastern limb ("*Sector C*") and up to 50° on the western limb ("*Sector B*") and in the eastern limbs of Sector A. Coal seams are flat lying in the vicinity of the synclinal axis with dips less than 10° observed along seismic lines crossing the area. On the basis of seismic data at least five thrust faults (Maracas, Calenturitas, La Loma, La Francia and El Tigre) oriented NE-SW have been interpreted affecting the deposit. The Calenturitas Fault and The El Tigre Fault have the greatest impact on dip angles in the eastern flank of the syncline with fault throws greater than 50 m.

3.3.5 Resources

The JORC Code identifies three levels of confidence in the reporting of Resources categories as follows:

- Measured: that part of Coal Resources for which tonnage, densities, shape, physical characteristics, and coal quality can be estimated with a high level of confidence;
- Indicated: can be estimated with a reasonable level of confidence; and
- Inferred: can be estimated with a low level of confidence.

Coal Resources within the Calenturitas coal tenements total **400** million tonnes (Mt) to a depth in excess of 400 m, comprising:

- **170 Mt** of Measured Resources;

- **160 Mt** of Indicated Resources; and
- **70 Mt** of Inferred Resources.

Table 3.1 – Calenturitas Gross and Net Attributable Resources (as of 31st December 2010)

Sector	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	TOTAL (Mt)
A	103.9	57.7	50	211.6
B	0.0	98.0	12	110.0
C/D	69.0	5.4	8	82.4
Totals	**172.9**	**161.1**	**70**	**404**
Rounded	**170**	**160**	**70**	**400**

Because of the shallow southwesterly plunge of the Calenturitas Syncline, the coal seams intersected in drill holes in Sector C and Sector B on the eastern and western limbs of the syncline respectively, may occur in the core of the syncline in the south of Calenturitas, but at considerable depth. This deep coal is considered to be an exploration target in the order of 300M-400M tonnes, provided the coal seams in Sectors B and C maintain their thickness at depth. This tonnage range was estimated on the basis of including all seams down dip of Sectors B and C where the dip of the seams is more than 10 degrees (to an approximate depth of 600m). Below that depth, within a zone proximal to the synclinal axis, where the strata dip is likely to be less than 10 degrees, Resource tonnages for the thicker seams only (seams C400 – 1.9m, C330 – 2m, C270 – 3m, C200/199 – 5m) were estimated. The potential tonnage is conceptual only as there is no drill data that confirms the thickness or even the presence of coal in the deeper part of the syncline, although historical seismic surveys, conducted by Ecopetrol and some private hydrocarbon exploration companies, have clearly delineated the shape of the synclinal fold at depth. There has been insufficient exploration, however, to define a Coal Resource and it is uncertain if further exploration will result in the determination of a Coal Resource.

3.3.6 Resource Coal Quality

The geological model has utilised all the coal quality data obtained in previous exploration programs since the early 1990's. Average estimated in situ moisture was determined from total moisture analysis of core samples which had been sampled and placed in cold storage immediately after the sample was retrieved on the surface. A sub-sample of the crushed coal was analysed for relative density together with air dried moisture and ash from proximate analyses. Using the Preston-Sanders equation, the RD was converted to the average in situ moisture basis. Ash was also converted to in situ moisture basis.

The average coal qualities for each seam are presented in **Table 3.2**.

Table 3.2 – Calenturitas Resource Coal Qualities by Seam (@moisture Insitu)

Seam	Density (t/cu.m)	Ash (%) is	Energy (BTU/lb) is	Total Sulphur (%) is	Volatile Matter (%)is	Total Moisture (%) is
C420	1.32	6.0	10,860	1.43	36.2	14.7
C410	1.35	9.6	10,329	3.44	35.6	14.9
C400	1.30	3.9	11,142	0.55	35.6	14.7
C390	1.31	4.8	11,067	1.36	37.1	14.5
C380	1.32	5.7	10,915	0.74	35.3	14.7
C375	1.35	10.0	10,000	0.90	35.0	12.0
C370	1.33	7.0	10,739	1.12	35.7	14.7
C360	1.32	6.4	10,843	0.83	35.2	14.5
C359	1.31	5.2	11,056	1.24	36.0	14.3
C350	1.35	10.0	10,000	0.90	35.0	12.0
C345	1.31	4.9	11,303	0.68	36.6	13.3
C340	1.30	3.8	11,454	0.65	36.6	13.3
C335	1.34	8.3	10,795	0.64	35.5	13.5
C330	1.29	3.0	11,549	1.14	36.7	13.4
C329	1.32	6.8	11,097	1.98	36.8	13.0
C325	1.36	10.4	10,532	3.68	36.9	13.4
C320	1.31	5.6	11,109	0.84	35.0	13.7
C310	1.30	3.5	11,497	0.64	36.4	13.3
C300	1.31	4.8	11,310	0.81	35.8	13.3
C290	1.42	17.7	9,543	2.11	32.5	13.3
C285	1.33	7.6	10,949	0.79	36.1	13.1
C280	1.30	4.4	11,342	0.71	35.9	13.4
C270U	1.30	3.6	11,483	0.37	35.3	13.3
C270L	1.31	4.6	11,351	0.47	34.8	13.3
C260U	1.35	9.9	10,615	0.40	32.3	13.3
C260L	1.35	9.7	10,645	0.45	33.2	13.3
C250U	1.32	5.9	11,425	0.46	36.4	12.3
C250L	1.33	6.9	11,287	0.47	36.4	12.3
C240	1.30	4.3	11,647	0.46	36.9	12.3
C230	1.38	13.3	10,420	1.61	34.1	12.2
C220	1.32	6.4	11,350	0.69	35.9	12.3

C210U	1.32	6.6	11,325	0.44	34.2	12.3
C210L	1.32	6.3	11,370	0.44	34.6	12.3
C200U	1.29	2.1	11,945	0.41	36.4	12.3
C200L	1.29	2.5	11,895	0.41	36.2	12.3
C199	1.29	3.1	11,819	0.45	36.9	12.3
C195	1.35	10.0	10,000	0.90	35.0	12.0
C190U	1.35	10.3	10,783	1.11	35.7	12.4
C190L	1.33	7.9	11,116	1.08	36.5	12.4
C185	1.35	10.0	10,000	0.90	35.0	12.0
C180	1.30	4.0	11,696	0.61	34.7	12.3
C175	1.38	13.3	10,474	1.62	33.1	12.0
C170	1.31	5.6	11,489	1.08	35.9	12.1
C169	1.32	6.8	11,134	0.63	36.9	13.0
C165	1.34	8.2	11,101	2.73	35.3	12.3
C160	1.30	4.3	11,651	1.21	35.3	12.2
C155	1.33	6.9	11,253	2.49	35.8	12.4
C140U	1.32	5.7	11,628	0.86	36.7	11.4
C140L	1.31	4.6	11,818	1.21	36.4	11.3
C130U	1.32	6.2	11,617	0.68	35.9	11.1
C130L	1.32	6.5	11,571	0.68	35.9	11.2
TOTAL	**1.3**	**4.9**	**11,425**	**0.7**	**35.8**	**12.9**

3.4 Mining

3.4.1 Reserves

The process used in converting the Coal Resources into Coal Reserves included the following:

- The latest (October 2010) geological model was used to update the Life of Mine Plan;
- Pit limits incorporate physical boundaries such as river diversions (now completed), lease boundaries, sub crops of the coal seams and economic limits (determined as the coal seams get deeper);
- Appropriate and reasonable allowances were made for mining recovery; losses and dilution for the proposed equipment and past experience;
- Coal is not washed and hence no metallurgical factors were applied; and
- Based on the level of confidence in the mine planning, all of the Indicated Resources within the practical pit shell are classified as "Probable Reserves" and the Measured Resources within the practical pit shell are classified as "Proved Reserves". Inferred Resources were not included in the Reserves.

The difference between the Measured and Indicated Coal Resources (330 Mt) and the Coal Reserves (209 Mt) is explained by the following:

- there are geological and mining losses and dilution gains in the Reserves estimation;
- minimum coal seam thickness rules have been applied in estimating Reserves; and
- the Measured and Indicated Resource polygons extend beyond the practical pit shell in some instances.

The review and cross reference against the JORC Code check list showed no material omissions and confirmed that the reserve estimating process is in compliance with JORC guidelines.

Total Coal Reserves are **209 Mt** including 113 Mt of Proved Coal Reserves and 96 Mt of Probable Coal Reserves. The average coal quality is 11,112 BTU/lb (ar), ash 7.2% (ar) and sulphur 0.6% (ar). As received moisture is 12%. Coal Reserves are classified based on the level of detail completed in the mine planning and also the level of confidence in the Resources. Coal Resources are reported inclusive of Coal Reserves (that is, Coal Reserves are not additional to Coal Resources).

Table 3.3 – Calenturitas Gross & Attributable Coal Reserves (as of 31st December 2010)

Date	Proved (Mt)	Probable (Mt)	Totals (Mt)
Reserves 31st Dec 2010	**113**	**96**	**209**

3.4.2 Mining Operations

The Calenturitas coal deposit can be characterised as a deep, multiple seam, sub-cropping and steep to moderately dipping synclinal basin. The dipping nature of the coal structure makes it suitable for excavation using conventional open cut mining methods that initially excavate low strip ratio sub-cropping coal followed by deeper coal mining that progresses from one end of the deposit to the other.

A combinatation of small and large hydraulic excavators (100 t - 550 t) are used to load overburden into off highway rear dump trucks which haul the material to a combination of inpit and expit dumps.

Coal mining is by a combination of hydraulic excavators working in tandem with dozers. Medium sized backhoes excavate the overburden and interburden to near the contacts between waste and coal. Smaller dozers or flat bladed small hydraulic excavators clean the waste materials from the coal roof contact. The care taken in this method determines the amount of both loss and dilution. Finally, excavators dig the waste material which has been heaped by the dozers.

In determining the pit layout Prodeco has made considerations for working room, slope angles, safety considerations, haul road designs, production requirements and materials balance. All pits have been designed to operate with ramp access developed in the advancing faces, these ramps will carry all coal haul trucks to the surface and waste trucks either to the surface or to benches with direct access to the horizontal haul back roads to the in-pit waste dumps.

Coal is hauled to the ROM pad located at the current coal handling facility.

3.4.3 Production Schedules

Key production scheduling criteria included:

- mining from the three pits at the same time;
- nominal 3 months in-pit coal inventory; and
- maximum coal production of 14.3 Mtpa (9.5 Mtpa from Sector A, 2.0 Mtpa from Sector B and 2.8 Mtpa from Sector C).

The mine scheduling blocks have been sequenced into a logical mining progression. All pits have been sequenced with a layback angle of 11°-15° on the advancing face. The resulting waste and coal production schedule is given in summary in **Table 3.4**.

Table 3.4 – Calenturitas Waste and Coal Production

Seam	Waste (Mbcm)	ROM Coal (Mt)	Strip Ratio (bcm/t ROM)	ROM Energy @12.5% moist. (BTU/lb)
2011	90.7	8.5	10.7	11,027
2012	102.8	10.5	9.8	11,006
2013	109.7	12.8	8.6	11,102
2014	127.7	13.3	9.6	11,086
2015	133.4	13.6	9.8	11,138
2016	133.6	14.0	9.6	11,132
2017	134.2	14.2	9.5	11,114
2018	134.8	14.1	9.6	11,150
2019	133.2	14.3	9.3	11,158
2020	135.2	14.1	9.6	11,131
2021	133.0	14.0	9.5	11,137
2022	127.3	12.1	10.5	11,149
2023	118.7	11.4	10.4	11,107
2024	116.2	10.9	10.7	11,082
2025	105.6	8.6	12.3	11,125
2026	105.7	8.5	12.4	11,053
2027	88.8	8.7	10.3	11,040
2028	62.7	5.3	11.4	11,097
Total	**2,093.3**	**208.8**	**10.0**	**11,112**

Note: Additional non JORC Reserve in the LOM Pit shell could potentially extend mine life by approximately 3 years

3.4.4 Mining Equipment

Large production equipment currently operates on a 7-day, 2 x 12-hour roster with 3 panels. Although equipment is scheduled to work 7 days at 24 hours per day, there are many factors that reduce the actual operating time.

Table 3.5 shows the typical main equipment types and numbers operating at Calenturitas.

Table 3.5 – Calenturitas Fleet Numbers

Category		Size	2010
Budget Coal		Mt	7.2
Budget Waste		Mbcm	67.0
Waste Equipment	**Specification**		
Excavators	O&K RH340	34 cu.m	1
	EX 3600	23.5 cu.m	5
	O&K RH120-E	17 cu.m	4
	O&K RH40-E	6 cu.m	5
Haul Trucks	Caterpillar 793C	220 t	7
	Caterpillar 789C	180 t	28
	Caterpillar 777F	91 t	42
Drills	Drill	55,000 lb	8
	Drill	40,000 lb	3
Dozers	Caterpillar D10T	433 kW	5
	Caterpillar D9R	302 kW	8
	Caterpillar 834G	358 kW	4
Coal Equipment			
Excavator	O&K RH 40-E	8 cu.m	3
	Cat 330	2 cu.m	5
Haul Truck	Caterpillar 777F	91 t	9
Dozers	Caterpillar D10T	433 kW	3
	Caterpillar D7R	171 kW	5
	Caterpillar 834G	358 kW	2
Support Equipment			
Excavators/FEL	Caterpillar 988G	6.4 cu.m	4
Haul Truck	Caterpillar 763F	91 t	5
Grader	Caterpillar 16H	205 kW	11
Water Truck	Caterpillar 777	100 t	5

3.4.5 ROM Coal Quality

Average ROM coal qualities for each seam are presented in **Table 3.6**.

Table 3.6 – Calenturitas Average ROM Coal Qualities by Seam (@12.5% moisture)

Seam	Density (t/cu.m)	Ash (%) is	Energy (BTU/lb) is	Total Sulphur (%) is	Volatile Matter (%)is
C420	1.4	10.9	10,219	1.3	34.4
C410	1.4	16.5	9,417	3.4	33.0
C400	1.3	5.2	10,973	0.6	35.2
C390	1.3	8.4	10,606	1.4	35.9
C380	1.3	7.9	10,627	0.8	34.5
C375	1.4	17.1	9,093	0.9	32.5
C370	1.4	11.0	10,210	1.1	34.2
C360	1.4	9.3	10,465	0.8	34.2
C359	1.4	9.5	10,499	1.0	34.5
C350	1.5	27.1	7,872	0.8	28.7
C345	1.4	9.8	10,656	0.7	34.8
C340	1.3	6.9	11,039	0.6	35.5
C335	1.4	16.1	9,716	0.7	32.6
C330	1.3	4.1	11,400	1.1	36.3
C329	1.4	12.5	10,320	1.9	34.9
C325	1.4	17.4	9,591	3.5	34.1
C320	1.4	13.0	10,092	0.9	32.4
C310	1.3	6.0	11,165	0.6	35.5
C300	1.3	7.5	10,952	0.8	34.8
C290	1.5	23.6	8,737	2.0	30.3
C285	1.4	12.4	10,322	0.7	34.4
C280	1.3	8.5	10,777	0.7	34.5
C270U	1.3	4.2	11,399	0.4	35.1
C270L	1.4	10.0	10,624	0.5	33.1
C260U	1.4	12.8	10,213	0.5	31.5
C260L	1.4	16.9	9,666	0.5	30.9
C250U	1.3	6.8	11,289	0.5	36.1
C250L	1.4	17.1	9,909	0.5	32.8
C240	1.3	5.8	11,439	0.5	36.3
C230	1.4	19.4	9,613	1.3	31.8
C220	1.4	12.1	10,579	0.7	33.8
C210U	1.3	8.1	11,107	0.5	33.8
C210L	1.4	13.3	10,383	0.5	32.2
C200U	1.3	2.4	11,914	0.4	36.3

C200L	1.3	4.8	11,589	0.4	35.5
C199	1.3	5.6	11,482	0.5	36.0
C195	1.5	21.8	8,543	1.0	31.1
C190U	1.4	14.7	10,200	1.1	34.1
C190L	1.4	17.4	9,834	1.0	32.9
C185	1.4	15.8	9,318	0.9	32.9
C180	1.3	6.8	11,302	0.6	33.9
C175	1.4	18.7	9,720	1.5	31.2
C170	1.3	7.6	11,218	1.1	35.1
C169	1.4	13.7	10,174	0.6	34.7
C165	1.4	11.1	10,721	2.7	34.4
C160	1.3	6.6	11,343	1.2	34.5
C155	1.3	9.0	10,980	2.5	35.2
C150	1.4	11.4	10,877	1.7	34.1
C140U	1.4	11.8	10,724	0.9	35.0
C140L	1.3	7.6	11,398	1.2	35.4
C130U	1.3	8.6	11,294	0.7	35.1
C130L	1.4	13.9	10,541	0.6	33.4
TOTAL	**1.3**	**7.2**	**11,112**	**0.7**	**34.9**

3.5 Coal Handling & Processing

Calenturitas coal is not washed; there is no wash plant for either Calenturitas or La Jagua coal. ROM coal is sized and sold as product coal.

ROM coal from the Calenturitas mine is truck dumped into a 320 t hopper and fed through both primary and secondary sizing, weighed, sampled and stacked via a linear stacker onto the product stockpile at a rate of up to 3,000 tph. The stockpile is designed to hold 80,000 t of live coal in two grades. Dozer pushout of the pile will enable up to 400,000 t of product coal to be stockpiled.

A new truck dump area will be operational in 2011 with a 60 t hopper feeding to one of two radial stackers onto the product stockpile. Two grades of coal with 30,000 t live capacity for each grade (60,000 t total) can be stockpiled. Dozer pushout can increase the stockpile to 350,000 t.

Beneath the stockyard is a 4,000 tph reclaim conveyor fed by eight valves which can be controlled to blend the coal being loaded into the trains. Coal is weighed and sampled before entering a 360 t surge bin above the rail loadout. A Coalscan device is fitted to the base of the inclined belt and provides instantaneous quality control.

A 65 t batch weigh bin prepares the coal for the final loading into the rail wagons.

There are stockpiles at the mine to facilitate blending and to smooth fluctuations in coal supply due to weather and interruptions to the continuity of coal supply due to equipment maintenance and other interruptions.

There are variations in coal quality between each seam and between each pit. Blending is achieved by:

- mining from different pits during the one shift;
- mining from different seams;
- blending at the crusher;
- blending on the stockpile before the train is loaded; and
- further blending at the port(s).

3.6 Long Term Prospects

The Calenturitas deposit has to a large extent been optimised with limited upside in extending the economic pit limits or the annual mining rate. There are opportunities to mine from the high wall with underground techniques such as highwall miners, augers and traditional underground mining. These methods have not been examined in the current mine plan.

4. LA JAGUA COAL MINE

4.1 Overview

The La Jagua coal deposit is contained within an isolated, elongated basinal structure (La Jagua Syncline) and is typified by the presence of a prominent hill (Cerro de Piedra) overlying the coal reserves in the southern part of the deposit.

La Jagua had many local producers operating in the deposit during the 1990's. Five years ago there were three companies producing coal out of the La Jagua deposit; Carbones del Caribe ("*CD*"), Concorcio Minero Unido ("*CMU*") and Carboandes ("*CA*"). Prodeco purchased these leases and consolidated what were three different mine plans into a single operation which provided the opportunity to develop a mine plan that delivered the maximum recovery of coal otherwise lost in the boundary between each lease.

Prodeco bought the main lease of the deposit and established the company Carbones de La Jagua ("*CDJ*") in 2005. In 2006, Prodeco purchased CMU and in 2007 the CA Lease was acquired and the new company Carbones El Tesoro ("*CET*") was formed. Each company previously developed separate areas of the deposit which created the South Pit , North Pit, El Tesoro Pit and the CMU Pit. CDJ/CMU/CET now operates all three areas as one operation.

Prodeco mines La Jagua in combination with the other Prodeco coal deposit, Calenturitas, located 20 km west of La Jagua. By operating both deposits under similar management and pooling resources, costs can be reduced and revenue can be optimised by blending coal.

The target production from the La Jagua deposit is 7 Mtpa. The mine is being developed from the north to south using Caterpillar haul trucks loaded by O&K excavators. The entire deposit (except for a small wedge in the north) will be mined with underburden on the western side due to geotechnical constraints. Mining under the Tucuy River will commence in 2014. New offices and workshop facilities are currently being built and will be completed early 2011.

The mining sequence is based on haulback mining progressing south along the length of the deposit. This allows in-pit dumping, thereby minimizing ex-pit dump size. This also results in a better final landform because more material is backfilled into the mined out areas.

Coal is hauled from the pit to the ROM stockpile were it is stockpiled according to coal quality. Coal is crushed to size and loaded to road trucks where it is hauled to Calenturitas for blending and train load out for transport to the port. The coal is not washed.

Most of the product coal is primarily sold on the international market as a thermal coal with approximately 0.5 Mt to 1.5 Mt of La Jagua coal sold as high volatile PCI. The coal has a track record with recognition in the market and its energy and relatively low sulphur content makes it attractive in the market place. Some of the quality characteristics of the La Jagua coal would lend it to potential sales into the high volatile PCI markets. The coal is marketed by Glencore, the owner of Prodeco.

4.2 Maps and Plans

The regional location of the mine is shown on **Figure 1**. Typical stratigraphy and a cross section showing the geological structure is shown on **Figures 9** and **Figure 10**.

4.3 Geology

4.3.1 Site Geology

La Jagua is a multi-seam coal deposit in a northeast-oriented synclinal basin structure, approximately 5km long and 2km wide. The deposit dips steeply on the northwest and southeast flanks. The centre of the deposit is flatter with dips up to 5 degrees. On the basis of borehole and mining records to date, two faults have been identified within the deposit, La Victoria and La Nueva faults. La Victoria is a southwest-trending normal fault with a throw up to 20 m parallel to and close to the syncline axis. La Nueva Fault has been interpreted from drill hole data and occurs to the west of La Victoria Fault and has a throw up to 10 m. A series of geological cross sections, illustrating the synclinal shape and distribution of coal seams are presented in **Figure 9**. A significant topographic feature which impacts on the open cut strip ratio is the hill in the southern half of the deposit (Cerro de Piedra).

4.3.2 Stratigraphy

A typical stratigraphic column for Cesar basin and geology of La Jagua is illustrated in **Figure 2** and a coal seam correlation with Calenturitas is shown on **Figure 3**.

A total of 23 seams with a cumulative thickness of approximately 35 m occur within the La Jagua deposit sub cropping along the western and eastern limbs of the syncline. Seam M0 is the uppermost coal seam and Seam M45 is at the base of the main economic sequence – a stratigraphic interval approximately 200 m thick. Seam M15 is the thickest coal seam (average 5m) and seams M2 and M3 contain a thin intra-seam stone band.

4.3.3 Resources

Coal Resources within the La Jagua area total **140** million tonnes (Mt) comprising:

- **117 Mt** of Measured Resources;
- **23 Mt** of Indicated Resources; and
- **There are no Inferred** Resources.

Table 4.1 – La Jagua Gross and Net Attributable Resources (as of 31st December 2010)

Sector	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	TOTAL (Mt)
Totals	117.2	23.1	0.0	140.3
Rounded	**117**	**23**	**0**	**140**

4.3.4 Resource Coal Quality

The average estimated in situ moisture was determined from total moisture analysis of core samples which had been sampled and placed in cold storage immediately after the core reached the surface. A sub-sample of the crushed coal was analysed for relative density together with an air dried moisture and ash from proximates. Using the Preston Sanders equation, the RD was converted to the average in situ moisture basis at 7.5%. Ash was also converted to 7.5% moisture basis.

Average coal qualities for each seam are presented in **Table 4.2**.

Table 4.2 – La Jagua Resource Coal Qualities by Seam (@ 7.5% moisture ar)

Seam	Density (t/cu.m)	Ash (%)	Energy (BTU/lb)	Total Sulphur (%)	Volatile Matter (%)
M00	1.32	4.2	12,460	1.3	38.8
M01	1.36	8.6	11,750	1.1	38.0
M02U	1.32	2.5	12,673	0.6	38.3
M02L	1.34	7.6	12,039	3.8	38.5
M03U	1.31	2.8	12,795	0.5	38.8
M03A	1.35	5.8	11,927	0.8	37.5
M03B	1.35	7.6	12,072	0.9	36.7
M04	1.33	5.0	12,439	2.4	39.7
M05	1.30	2.8	12,798	0.8	38.6
M08	1.33	4.6	12,235	0.9	37.4
M09	1.34	7.5	12,033	0.8	35.8
M10	1.30	2.6	12,777	0.9	37.7
M11	1.33	6.0	12,265	2.3	39.1
M15	1.30	2.4	13,068	0.4	37.4
M17	1.34	6.6	12,126	0.6	36.4
M20	1.32	4.0	12,764	0.4	36.9
M25	1.32	4.2	12,717	1.0	36.8
M27	1.48	23.1	9,795	0.5	27.5
M28	1.37	9.1	11,596	0.8	37.4
M30	1.33	5.7	12,407	0.5	36.1
M35	1.30	3.0	12,988	0.7	36.7
M40	1.32	4.7	12,718	1.1	38.3
M45	1.30	2.2	13,071	0.6	37.3
Average	**1.31**	**3.8**	**12,741**	**0.8**	**37.4**

4.4 Mining

4.4.1 Reserves

The process used in converting the Coal Resources into Coal Reserves included the following:

- The latest (October 2010) geological model has been used to update the Life of Mine Plan;
- The mine design includes all coal in the basin;
- The side slopes have been flattened to allow for stability. This means some waste material below the lowest coal seam has to be mined;
- Pit limits incorporate physical boundaries such as river diversions, lease boundaries, sub crops of the coal seams and economic limits (determined as the coal structure gets deeper);
- Appropriate and reasonable allowances have been made for mining recovery; losses and dilution considering the proposed equipment and past experience;

- Coal is not washed and hence no metallurgical factors have been applied; and
- All of the Indicated Resources within the practical pit shell are classified as "Probable Reserves" and the Measured Resources within the practical pit shell are classified as "Proved Reserves". There are no Inferred Resources.

The difference between the Measured and Indicated Coal Resources (140 Mt) and the Coal Reserves (128 Mt) is explained by the following:

- geological and mining losses and dilution gains in the Reserves estimation;
- a small portion of Resource coal falling outside the practical pit shell; and
- minimum thickness rules being applied in estimating Reserves.

Coal Reserves total **128 Mt** comprising 106 Mt of Proved and 22 Mt of Probable Coal Reserves as shown in **Table 4.3.**

The average strip ratio over the mine life is 6.6 bcm/ tonne. The average coal quality is 12,154 BTU/lb (ar), ash 8.4% (ar) and sulphur 0.78% (ar). As received moisture is estimated at 8.0%. Coal Reserves are classified based on the level of detail completed in the mine planning and also the level of confidence in the resources. Coal Resources are reported inclusive of Coal Reserves.

Table 4.3 – La Jagua Gross & Attributable Coal Reserves (as of 31st December 2010)

Date	Proved (Mt)	Probable (Mt)	Totals (Mt)
Coal Reserves 31st December 2010	106	22	128

4.4.2 Mining Operations

The La Jagua coal deposit consists of 23 seams and can be characterised as a deep, multiple seam, sub-cropping and steep to moderately dipping synclinal basin. The dipping nature of the coal structure makes it suitable for excavation using conventional open cut mining methods that initially excavate low strip ratio sub-cropping coal followed by deeper coal mining that progresses from one end of the deposit to the other.

A combinatation of small and large hydraulic excavators (100 t - 550 t) are used to load overburden into off highway rear dump trucks which haul the material to a combination of in-pit and ex-pit dumps.

Coal mining is by a combination of hydraulic excavators working in tandem with dozers. Medium sized backhoes excavate the overburden and interburden to near the contacts between waste and coal. Smaller dozers or flat bladed small hydraulic excavators will clean the waste materials from the coal contact. The care taken in this method determines the amount of both loss and dilution. Finally, excavators dig the waste material which has been heaped by the dozers.

In determining the pit layout Prodeco have made considerations for working room, slope angles, safety considerations, haul road designs, production requirements and materials balance. All pits have been designed to operate with ramp access developed in the advancing faces, these ramps will carry all coal haul trucks to the surface and waste trucks either to the surface or to benches with direct access to the horizontal haul back roads to the in-pit waste dumps.

4.4.3 Production Schedules

All pits have been sequenced with a layback angle of 11°-15° on the advancing face. The resulting waste and coal production schedule is given in summary in **Table 4.4**.

Table 4.4 – La Jagua Waste and Coal Production

Seam	Waste (Mbcm)	ROM Coal (Mt)	Strip Ratio (bcm/t ROM)
2011	47.1	7.1	6.6
2012	49.7	7.1	7.0
2013	49.6	7.1	7.0
2014	53.9	7.0	7.7
2015	54.5	7.1	7.7
2016	54.5	7.2	7.6
2017	54.4	7.0	7.8
2018	54.7	7.1	7.7
2019	54.6	7.1	7.7
2020	54.5	7.0	7.8
2021	52.1	7.0	7.4
2022	52.0	7.0	7.4
2023	45.0	7.0	6.4
2024	40.9	7.1	5.8
2025	35.0	7.1	4.9
2026	30.0	7.1	4.2
2027	25.0	6.0	4.2
2028	24.0	6.0	4.0
2029	7.5	2.9	2.6
Totals	**839.9**	**128.2**	**6.5**

4.4.4 Mining Equipment

Large production equipment currently operates on a 7-day, 2 x 12-hour roster with 3 panels.

Table 4.5 shows the typical main equipment type and number operating at La Jagua.

Table 4.5 – La Jagua Fleet Numbers

Category		Size	2010
Budget Coal		Mt	7.3
Budget Waste		Mbcm	49.5
Waste Equipment	**Specification**		
Excavators	PC 5500	34 cu.m	1
	O&K RH170	22 cu.m	4
	O&K RH120-E	17 cu.m	3
	O&K RH40-E	6 cu.m	4
Haul Trucks	Caterpillar 789C	180 t	24
	Caterpillar 777F	91 t	44
Drills	Drill	55,000 lb	3
	Drill	40,000 lb	2
Dozers	CaterpillarD10R	425 kW	3
	CaterpillarD9R	302 kW	7
	Caterpillar834G	358 kW	3
Coal Equipment			
Excavator	O&K RH 40-E	8 cu.m	3
	Catepillar 330DL	2.5 cu.m	6
Haul Truck	Caterpillar 777F	91 t	6
Drills	Drill	40,000 lb	1
Dozers	Caterpillar D9R	302 kW	3
	Caterpillar 834G	358 kW	3
	Caterpillar D7R	171 kW	3
Support Equipment			
Excavators	Caterpillar 988G	6.4 cu.m	3
	Caterpillar 330DL	2.5 cu.m	2
Haul Truck	Caterpillar 777F	91 t	5
Grader	Caterpillar 16H	205 kW	6
Water Truck	Caterpillar 777	100 t	4

4.4.5 ROM Coal Quality

Average ROM coal qualities for each seam are presented in **Table 4.6**.

Table 4.6 – La Jagua ROM Coal Qualities by Seam (@ 8.0% moisture ar)

Seam	Ash (%)	Energy (BTU/lb)	Total Sulphur (%)	Volatile Matter (%)
M00	12.9	11,360	1.35	35.9
M01	19.7	10,383	1.02	34.2
M02U	6.1	12,355	0.61	37.5
M02L	19.5	10,347	3.30	33.9
M03U	6.9	12,244	0.50	37.4
M03A	23.2	9,846	0.70	32.2
M03B	17.1	10,767	1.08	33.5
M04	12.7	11,399	2.51	37.0
M05	5.4	12,459	0.84	37.8
M08	14.4	11,142	0.89	34.6
M09	22.7	9,964	1.15	30.9
M10	10.1	11,790	0.83	35.3
M11	22.5	9,904	2.90	32.8
M15	4.1	12,847	0.35	36.9
M17	19.1	10,602	0.54	32.6
M20	9.0	12,115	0.38	35.3
M25	8.2	12,223	0.99	35.6
M27	33.5	8,499	0.48	24.4
M28	26.7	9,427	0.71	31.8
M30	11.5	11,734	0.47	34.5
M35	5.7	12,602	0.71	35.9
M40	7.5	12,316	1.11	37.5
M45	4.8	12,751	0.60	36.5
Average	**8.3**	**12,163**	**0.77**	**35.9**

4.5 Coal Handling & Processing

La Jagua coal is not washed; there is no wash plant for either La Jagua or Calenturitas coal. ROM coal is sized and sold as product coal. There is no rail connection between La Jagua and Calenturitas. The coal from La Jagua is generally trucked 20 km to Calenturitas.

Prodeco is currently relocating and upgrading the La Jagua ROM stockpiles at Las Flores with new primary and secondary sizing and an overhead bin for truck loading scheduled to be operational in early 2011. The bin has been designed to batch weigh the coal and load 35 t, 50 t and 70 t trucks. Additionally, the National Highway between La Jagua and Calenturitas is to be fully sealed by July 2011 to improve the truck cycle time. A new contract for the coal haulage is being negotiated and will include the required truck fleet to support the proposed throughput.

The product stockpiles at Calenturitas facilitate blending and smoothe fluctuations in coal supply due to weather and interruptions to the continuity of coal supply. There are variations in coal quality between each seam and between each pit and blending is achieved in a similar fashion as described for Calenturitas in **Section 3.5**.

4.6 Long Term Prospects

The La Jagua deposit has to a large extent been optimised with limited upside in extending the economic pit limits or the annual mining rate.

5. PORT AND RAIL

5.1 Overview

Coal from the operating mines of Calenturitas and La Jagua is exported primarily through the port of Puerto Prodeco with some shipments through the Cabosan Port at Santa Marta port. The coal is railed approximately 220 km to Puerto Prodeco in train sets owned and operated by Prodeco. The rail line is operated and maintained by Fenoco which has been granted the concession from Chiriguana to Santa Marta. Fenoco is owned by the producing coal companies in the Cesar region with Prodeco holding a 39.76% share. Drummond Coal owns 40.96% of Fenoco with the remainder held by Vale, Carboandes and Carbones del Cesar.

Puerto Prodeco is owned and operated by Prodeco and has the capacity to handle up to 17 Mtpa. The coal loading in this area of Colombia is currently undertaken by barge loading and crane transfer to ships. The Colombian Government has decreed that all coal ports are to implement direct ship loading techniques. The government has granted Prodeco a concession in Cienaga and Prodeco are undertaking a project to develop a new coal loading terminal, Puerto Nuevo, scheduled to commence operations in 2013. At that time the existing Puerto Prodeco will be closed down.

5.2 Rail

5.2.1 Fenoco Track

Fenoco is a company incorporated to hold the rail concession from Chiriguana to Santa Marta. Currently, the only traffic on the rail line is coal transported from the Cesar region to the ports of Rio Cordoba, Drummond and Puerto Prodeco for various coal companies which are also shareholders of Fenoco.

The Fenoco main line is a narrow gauge line (914 mm) covering a distance of approximately 200 kms (excluding Calenturitas spur). The various mines and ports are connected to the main line at various points. The actual main line has been and is continuing to be upgraded; initially through the construction of sidings to increase its capacity and ultimately through the construction of a parallel railroad. The construction phases are being carried out by Fenoco. The original timetable for construction of the parallel line has been delayed for a number of reasons including approval processes. **Figure 12** shows the expected track configuration in 2011 when existing duplications are connected.

An area known as Sector 2 from km 865 to km 922 (57 km) does not have an environmental licence for construction due to encroachment by local communities. A number of alternative rail operation scenarios are being considered and negotiated with the government to ensure that adequate capacity is available when required through an alternative alignment for the second line through Sector 2 or through placement of additional passing loops.

In the sector from Puerto Drummond to Puerto Prodeco a curfew restriction was imposed on the operation and trains are not allowed to use that section between 2300 hr and 0500 hr, which limits the operations of Prodeco into their port. This will be immaterial in 2013 when the new port becomes operational as it branches off the main line before the Drummond port. In the last two quarters of 2012 the night time restrictions will be an issue for Prodeco. Management have developed appropriate procedures to implement as required including partial easing of the restrictions and/or additional rolling stock.

5.2.2 Prodeco Rail Operation

Prodeco has developed its own above rail operations with a fleet of 18 x GE C21 locomotives and 700 x FreightCar America coal wagons with nominal 60 t load and bottom dump doors. Operations commenced in 2008 and have been steadily increasing throughput, delivering 10.8 Mt in the 2010 calendar year.

Current operations use trains made up of two locomotives and 97 wagons carrying 5,820 t. The average theoretical cycle time is approximately 19.5 hours although non-operational delays such as the night restrictions into the port and passing loop delays increase the current cycle time to an average 24.5 hours. The capacity of the existing rail fleet under current conditions is 14.5 Mtpa. It is expected that the cycle time can be reduced with the completion of Fenoco track duplications which will enable faster running times, improved unloading rates at the port with the recent port expansion and the use of an additional standby siding at the port which reduces the impact of the night restrictions. The anticipated rail fleet capacity in 2011, considering the night restrictions, is 15.9 Mtpa.

To cope with future forecasts a number of alternatives are being considered including:

- some direct trucking of coal to Carbosan port rather than transporting by rail to Puerto Prodeco and loading trucks at the port to transport on to Carbosan port;
- negotiating some easing of the night time restrictions for a limited period of time; and
- adding an additional train consist which will increase the capacity to 16.7 Mtpa.

When Puerto Nuevo becomes operational, the train sizes will increase to 3 locomotives and 133 wagons hauling 7,980 t. With 5 train sets and the reduced cycle times the capacity will increase to approximately 21.9 Mtpa. The loading capacity at Calenturitas and the unloading capacities at Puerto Prodeco and Puerto Nuevo will always be higher than the rolling stock capacity.

5.3 Port

5.3.1 Puerto Prodeco

Puerto Prodeco is located 15 km south of Santa Marta. The operation has been continuously expanded over the last few years and the latest expansion to 17 Mtpa was completed in May 2010. The port is a barge loading facility and was started after a port concession was granted in 1979. Until 2008, coal was transported to the port by road trucks travelling 227 km from the mines.

Rail operations commenced with trains dumping through one 3,000 tph unloading pit and the coal being sent either to 2,500 tph stacking conveyors or directly to the barge loading conveyor with 2,500 tph capacity. In 2009 a port upgrade was commenced to increase the port capacity from 11 Mtpa to 17 Mtpa. The upgrade involved a second rail unloading pit, a second radial stacker, a second surge bin, and a barge loading system with 3,000 tph capacity. Additionally, a system for reloading trucks for transport to Carbosan port was installed.

The terminal operates with small stockpiles; maximum 300,000 t with up to 60% of coal being directly loaded into barges from the trains. Seven barges (5 x 2,800 t and 2 x 3,000 t) have been operating in 2010. Two more barges have been purchased and will be operational from January 2011.

Ocean going ships are moored at one of 3 mooring points located 2.75 km offshore. The mooring points are capable of accommodating large Capesize vessels up to 180,000 dwt. The October 2010 year-to-date shipping mix is 20% Handy, 35% Capes and 45% Panamax. Coal is transferred from the barges to the ships by cranes. The crane operation is contracted to Louis Dreyfus Armateurs and as at 1 January 2011 there will be four cranes in operation; 1 x 35 t, 2 x 25 t and 1 x 17 t with a backup 15 t crane held in reserve.

The Puerto Prodeco operation will be closed down in 2013 when Puerto Nuevo becomes operational.

5.3.2 Puerto Nuevo

In 2007 the Colombian government decreed that coal loading ports should be direct loading and the practice of indirect loading via barges should be eliminated. Prodeco, after committing to the new port construction in Cienaga, were granted an extension of the operational concession Puerto Prodeco until the new port is operational.

The land based environmental impact statement (EIS) has been completed and an Environmental License issued. The marine concession has been granted and the marine EIS completed with an environmental license granted. The marine areas are under appeal by Drummond; but are expected to be resolved by early 2011.

The port is designed for a capacity of 27 Mtpa and will include:

- a rail loop enabling one train (3 Locomotives and 133 wagons) before and one train after the dump station;
- an inbound storage track parallel to the loop track to allow queuing of one additional train;
- an outbound storage track parallel to the loop track to allow the unloading of two consecutive trains;
- an 8,000 tph dump station;
- 2 x 8,000 tph stacker reclaimers servicing a central 1 Mt stockyard;
- a 1.7 km long conveyor trestle;
- a 350 m long loading pier, 21 m wide;
- 1 x 8,000 tph ship loader capable of slewing to load on either berth; and
- a 8.5 km navigation channel, 20.3 m deep and a ship turning basin.

The design is consistent with recent developments and current design proposals elsewhere in the world; particularly in Australia where NCIG in Newcastle commissioned its 30 Mtpa first stage in 2010. Similar 30 Mtpa designs are proposed for Wiggins Island in Gladstone, Australia and for Abbot Point near Bowen in Australia.

Modeling of the new terminal has been undertaken by Sandwell, demonstrating that under the proposed operating conditions the port terminal is capable of handling 27 Mtpa. The assumptions used in the modeling appear appropriate and the results are consistent with modeling and performance evaluation of similar direct loading terminals around the world.

The modeling assumed that the Fenoco main line could operate with 20 minute headways and that duplication of the main line will be complete. This implies that a cycle time of approximately 12 hours will be required. Since there is some risk that the duplication will not be completed we have reviewed this aspect. Prodeco has modeled the 22 Mtpa operation and has used a cycle time of 15 hours which is consistent with dynamic simulation results from the Inteplan model of the system when Sector 2 is not duplicated. An additional passing loop at Nuevo Sevilla is included. The potential throughput of Drummond and the other rail users is important in determining the timing of additional rail infrastructure. We believe that the 22 Mtpa throughput will be achievable and that there is scope for additional throughput with the implementation of efficiencies such as reduced maintenance possessions and additional passing loops on the Fenoco track infrastructure.

5.4 Cost Estimates

Cost estimates have been provided by Prodeco, and have been analysed and reviewed.

5.4.1 Operating Costs

Rail costs have been budgeted based on historical performance and use forecast throughputs to calculate forward costs.

Table 5.1 – Rail Costs

Year	Below Rail		Above Rail		Total Rail	
	US$/t	US¢/ntk	US$/t	US¢/ntk	US$/t	US¢/ntk
2010 (9 mths)	2.45	1.2	2.71	1.4	5.16	2.6
2011	2.56	1.3	2.28	1.1	4.83	2.4
2012	2.66	1.3	2.39	1.2	5.05	2.5

Above Rail costs include o'heads, amortization and depreciation

Benchmark figures in Australian coal regions would be in the range of 0.6US¢/ntk – 1.7US¢/ntk below rail and 2.5US¢/ntk above rail. The below rail cost is at the upper end of general benchmark ranges and is associated with the significant capital investment undertaken by Fenoco recently and ongoing and the current exclusive use of the rail line by coal exporters. The above rail cost, operated by Prodeco, is particularly competitive.

Prodeco holds a concession with the Colombian government to operate a Port on the coast just south of the city of Santa Marta. After coal is unloaded from the trains it is stockpiled or else loaded directly via conveyor onto barges. Tugboats tow the barges to floating cranes offshore which then transfer the coal from the barges to the ship.

This facility has limited capacity in its current form and the government policy is to build a new "direct loading port" further south. This will allow for expansion as well as reducing operating costs by 66% as the tugboats, barges and floating crane will not be required.

Table 5.2 shows port operating costs at Puerto Prodeco:

Table 5.2 – Port Costs

Year	Operating US$/t	Overheads US$/t	Totals US$/t
2010 (9 mos)	$4.24	$0.97	$5.21
2011	$3.99	$1.16	$5.16
2012	$3.78	$1.08	$4.86

Overheads include amortization and depreciation

The barge loading port is scheduled to be closed down in 2013 when Puerto Nuevo commences operations.

Operating costs for the new direct loading port have been estimated by Sandwell for an annual throughput of 23 Mtpa as US$1.20/t. The savings compared to the existing port arise from reduced manning levels (260 compared to 400), higher handling rates, higher throughput and removal of costs associated with barges and cranes. Depreciation is assumed to be approximately US$1.60/t giving a total estimated operating cost for Puerto Nuevo of US$2.80/t. Benchmark rates in Australia for new and existing expanded terminals are in the order of US$4/t - US$6/t although the new proposed terminal in Gladstone has been reported as US$9/t. The rate for the existing port is similar but the new port will be considerably cheaper due to the lower labour rates and lower capital cost.

5.4.2 Capital Costs

There appear to be no major capital expenses scheduled in 2011 for the rail operation other than completion of rail connections and crossings on the mine spur line, maintenance equipment and fire suppression installation in locomotives. Total capital required for rail in 2011 is approximately US$6 million.

The existing port requires capital in 2011 of US$3.6 million for dry-docking of barges, US$1.2 million for tugboat dry-docking and US$1.4 million for D10 equipment. Other capital items include berths for the additional cranes, warehouse equipment, barge mooring and utility vehicles. Total capital required for theexisting port in 2011 is approximately US$7 million.

The major forecast capital expenditure is for the new port at Puerto Nuevo is US$528 million. The capital cost estimate for development of Puerto Nuevo is given in **Table 5.3**. At the end of 2010 approximately US$56 of this budget estimate has been spent.

Table 5.3 – Puerto Nuevo Capital Costs (US$ millions)

Item	Capital Cost (US$ mill)
Trestle/Pier	$111.1
Dredging	$33.1
Coal Handling	$138.8
Infrastructure	$76.5
Other Direct Costs	$33.4
Total Direct Costs	**$392.9**
Indirect Costs – Owner	$42.6
Land	$20.1
Financing – Taxes	$40.3
Total Indirect Costs	**$103.0**
Contingency	$32.1
Total with Contingency	**$528.0**

For the scope of work proposed this is less than might be anticipated when comparing against similar developments elsewhere in the world and is also lower than the Sandwell estimate of US$844 million. Installed capacity in Australia is often quoted as US$30 – US$50 per Mt of throughput whereas Puerto Nuevo is proposed at US$20/Mt of annual throughput. Prodeco has undertaken significant negotiation with prospective contractors both on cost and scope and the lower estimate is based on the results of these negotiations.

Sandvik has been awarded the Coal Handling contract and the Onshore Civil, Marine Civil and Dredging contracts should be awarded by December 2010. Phase 1 of the onshore civil works is almost complete with major earthmoving to form the rail loop, stockyard, screening bunds and drainage channels.

5.5 Summary

The rail and port operations of Prodeco have been planned to match the forecast throughput and Prodeco has exercised control of its future by:

- investing in Fenoco;
- developing facilities at La Jagua and Calenturitas to ensure the trains can be loaded as required;
- establishing its own rail operation;
- expanding the existing port to cope with the growth; and
- constructing a new port to meet forecast throughput and government requirements.

The assets are in generally good condition, and appear to be well maintained and operated.

Annex A – Qualifications and Experience

Grant Walker – Consulting Mining Engineer at Minarco-MineConsult - Bachelor of Engineering - Graduate Diploma in Applied Finance - Member of Australasian Institute of Mining and Metallurgy

Grant has over 15 years experience as a mining engineer, initially with operational experience at a number of coalmines in Australia and Indonesia, 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.

Grant has worked on numerous mine valuations, technical audits, operational assessments and coal supply studies within Australia, Colombia and other overseas countries and has carried out numerous due diligence exercises for financiers and investors.

Grant is a Competent Person as described by the JORC Code.

Kerry Whitby - Managing Director of McElroy Bryan Geological Services Pty Ltd - Bachelor of Science - Fellow of Australasian Institute of Mining and Metallurgy - Member Australian Institute of Geoscientists - Member Geological Society of Australia

Kerry Whitby is the Managing Director of McElroy Bryan Geological Services Pty Ltd, a consulting company based in Sydney, Australia that focuses on providing technical support and advice to the international coal exploration and mining industry. Kerry has been employed by the company since 1971. In that time he has been responsible for designing, implementing and managing coal exploration programmes in all major coal basins within Australia as well as a variety of coal deposits in South America, Africa and Asia. Over the last 15 years, Kerry has been involved in the preparation of geological appraisals, resource estimates and technical opinions related to project valuations on behalf of numerous companies in a variety of locations including Australia, U.K, U.S.A, Canada, Colombia, Mozambique, South Africa, Botswana, Mongolia, China, Indonesia, Sarawak, Myanmar and Bangladesh. Kerry is a Competent Person as described by the JORC Code and a Qualified Person in relation to NI 43-101.

Bob Leach

Bob Leach is a self employed coal quality consultant with a B Sc in Chemistry and M Sc in Primary Metallurgy. His current work committment involves diligence exercises conducted on behalf of several major companies focusing their attentions in the coal and related industries, peer review of project work and management of several coal quality and coal preparation projects located within Australia and internationally. He has worked on over 50 coal quality and coal preparation projects in the past ten years, within Australia and overseas. These projects have targeted either or both, thermal and coking coal products. Some current and recent projects are:

- Hinton Project, Canada for Coalspur Coal Ltd,
- Baruun Naran, Mongolia, for QGX Ltd,
- Donkin project Nova Scotia Canada, for Xstrata,
- Wandoan, Australia, for Xstrata,
- Calenturitas and La Jagua, Colombia, for Prodeco (Glencore).

Ben Eastwood - Senior Environmental Scientist at Hansen Bailey – Bachelor of Natural Resource Management (2nd class Hons)

Ben Eastwood is a senior environmental scientist with over seven years experience in both coal mine site environmental management and in the gaining of mine planning approvals. Ben has recently project coordinated mining authorities applications for the West Muswellbrook Project and has just completed an Environmental Assessment for the Continuation of Boggabri Coal Mine in the Gunnedah Coal Basin of NSW.

Ben has also conducted numerous due diligence audits for large scale coal mining and exploration projects throughout Australia. Ben has lived and worked in South America for six years and has a good understanding and appreciation of the people and culture. Ben is fluent in South American Spanish.

Ian Travis - Managing Director at Inteplan Pty Limited – Bachelor of Engineering (Hons) – MIEAust, CPEng, FCIT, MAICD

Ian was responsible for planning the expansion of the Port Waratah Coal Services Carrington Terminal during the 1980s and gained considerable experience in the management/planning of coal stockpiling systems. In 1989 Ian became Chief Executive of a joint venture company developed to promote major infrastructure projects, and held senior management positions with rail rolling stock manufacturers.

In 1991 Ian founded Inteplan Pty Limited, a consultancy service providing assistance to numerous logistics based industries with the main focus being Coal Export Supply Chain development; intermodal infrastructure capacity/development; rail industry business development; and freight contract development. Clients have included most major coal producers, port operators and banks. Significant work has been undertaken to provide expert advice on coal system capacities including for the development of Newcastle Coal Infrastructure Group and for coal export systems in Colombia, Russia and New Zealand.

Annex B – Glossary of Terms

acid mine drainage	Acidic run-off water from mine waste dumps and mill tailings ponds containing sulphide minerals. Also refers to ground water pumped to surface from mines. Such drainage often requires treatment to buffer acidity.
adb	Air dried basis, defining the moisture basis for coal quantity and quality parameters
adit	A horizontal or nearly horizontal entrance/access to an underground mine from the surface.
ar	As received basis, defining the moisture basis for coal quantity and quality parameters
alluvial	Relatively recent deposits of generally poorly consolidated sedimentary material laid down in river beds, flood plains and lakes.
ANFO	Acronym for Ammonium Nitrate and Fuel Oil, a mixture used as a blasting agent in many mines.
angle of repose	The maximum angle from horizontal at which a given material will rest on a given surface without sliding or rolling.
anthracite	Coal of the highest rank with a carbon content above 92%. This type of coal has a semi-metallic lustre
anticline	A line or axis to which strata rise from both directions in an arch shape.
aquifer	A water-bearing bed of permeable rock.
Ash	The inorganic residue remaining after a pulverised sample of coal is incinerated under standard laboratory conditions
attributable production	That part of the mine or operation production in which Glencore has an economic interest. It therefore excludes production attributable to the interests of any other partners
attributable reserves	That part of the reserves from a mine or project in which Glencore has an economic interest. It therefore excludes reserves attributable to the interests of any other partners.
attributable resources	That part of the resources from a mine or project in which Glencore has an economic interest. It therefore excludes reserves attributable to the interests of any other partners.
attributable sales	That part of the sales from a mine or project in which Glencore has an economic interest. It therefore excludes reserves attributable to the interests of any other partners.
A$	Australian dollars
bank cubic metre	The volume in cubic metres of an excavation measured in place before being disturbed
basalt	Fine grained igneous rock from an extrusive lava flow
basement	The older rock mass which underlies an ore body or a sedimentary basin. Often refers to rocks of Precambrian age which may be covered by younger rocks.
beneficiation	Treatment of mined coal by either drying, flotation, or gravity to improve the quality of the product material.
bord and pillar	A mining method for underground mines in which supporting pillars are formed as the development proceeds, and which may or may not be subsequently mined

calorific value	The heat of combustion of a unit quantity of coal; expressed in either British thermal units per pound (Btu/lb), kilocalories per kilogram (kcal/kg) or megajoules per kilogram (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. See "*specific energy*".
Carboniferous	The period from about 345 to 280 million years ago. It is part of the Paleozoic era
Chapter 19	Chapter 19 of the London Stock Exchange Listing Rules
CHPP	Coal Handling and Preparation Plant
coal, bituminous	A rank of black coal
coal, coking	Coal which is suitable for marketing and use as metallurgical coal, which is generally used in the steel making process
coal, high vol PCI	Coal which is suitable for direct injection into blast furnaces in a pulverized state and which has a high level of volatile matter
coal measures	A sequence of strata deposited within the same geological period that contains coal seams
coal, metallurgical	A broader term for describing coal which comprises both coking coals and PCI coals, both of which are used in the steel making process
coal, semi-soft	Coal which is not sutiable as a hard coking coal but is suitable as a component in coke oven blends
coal, thermal	Coal which is combusted to provide heat for steam generation and subsequent power generation, or burned for heat generation only
comminution	The physical breaking of the rock and coal into smaller sizes
Competent Person	A professionally qualified specialist defined in Chapter19.
conglomerate	A coarse grained sedimentary rock comprising large fragments set in a fine grained matrix of sand and cementing material
CPR	Competent Person's Report
CSN	Crucible Swell Number; a measure of the swelling properties of coal when heated; one of the most common tests to determine coal suitability for coking
dilution	The contamination of ore with barren or low grade rock during the mining process; effectively lowering the grade of the mined ore.
dyke	Igneous material cutting across the strata usually in a vertical or near vertical plane
fault	A fracture in the earth one side of which is displaced with respect to the other in any direction
fluvial	Pertaining to rivers. River environment for deposition of material
FOB	Free on board; commonly used to describe quantities or costs to deliver coal loaded onto a coal carrying ship
FOR	Free on rail; commonly used to describe quantities or costs to deliver coal loaded onto rail cars.

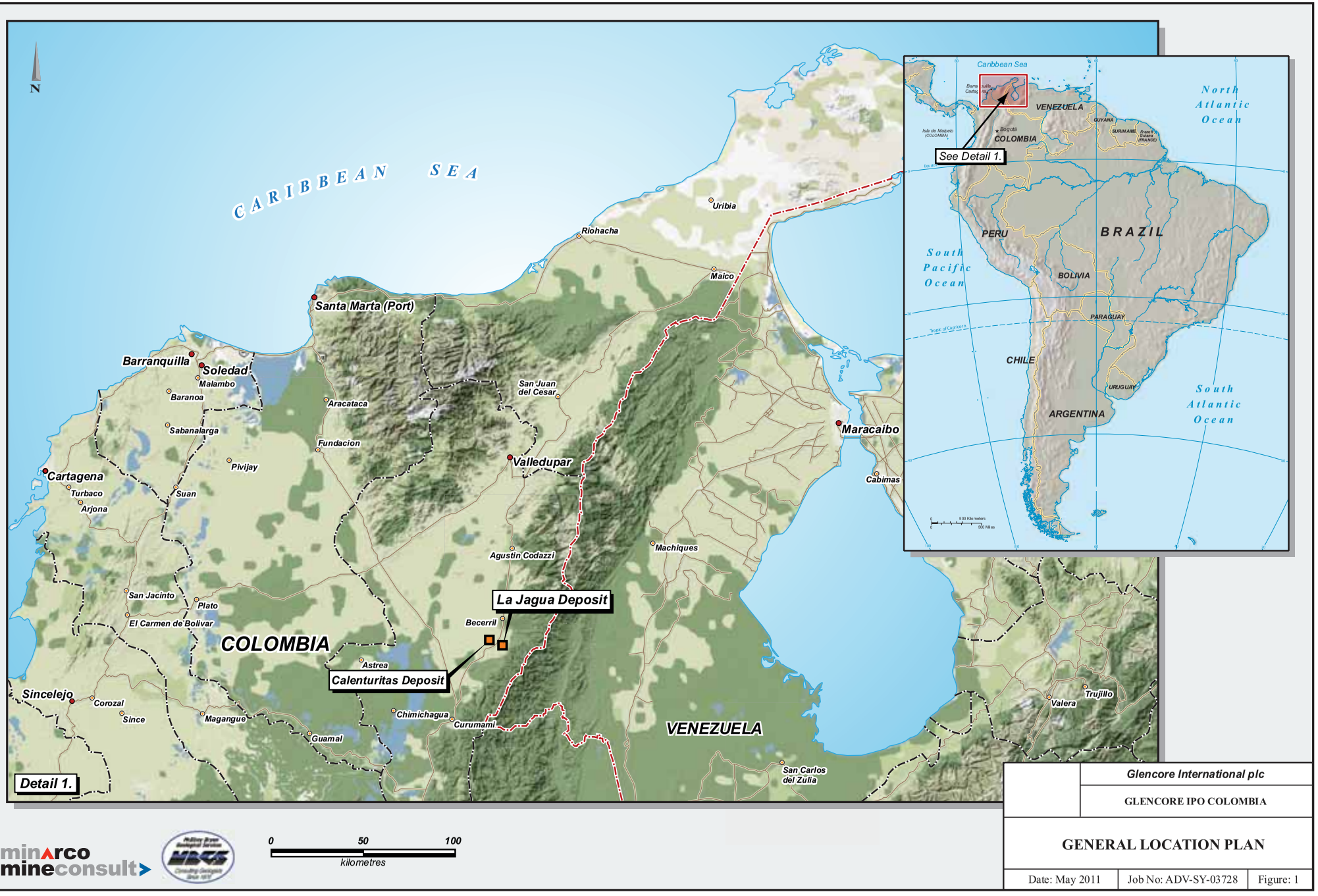
fold	Deformation of the strata due to tectonic forces
froth flotation	A coal cleaning process applied for the beneficiation of fine particles typically 0.5 millimetres in diameter. Hydrophobic coal particles attach themselves to air bubbles in a water medium and rise to the surface to form a froth
gar	Gross as received basis
geotechnical	The engineering properties of rocks
Glencore	Glencore International AG
graben	The lowering of strata between two fault planes forming a block of overburden rock interrupting the continuity of the coal seam
grade	The quality of an ore, alloy or metal; often expressed as a percentage contained within an ore, but sometimes a combination of numerous properties
greenfields	A location where no previous mining activity has taken place
Hansen Bailey	Hansen Bailey Environmental Consultants
Igneous	Material that has originated from a molten state
In situ	Material in the ground in its natural state; not mined, not processed
Inteplan	Inteplan Pty Limited, coal logistics consultants
interburden	Rock material separating coal seams
ITR	Independent technical review
joint	Natural fractures in rock generally vertical
JORC Code	*"Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code, 2004 Edition"*; prepared by The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC)
km	Kilometre
LD core	Large diameter exploration boreholes from which samples of the strata are retrieved. The diameter of the core is generally 100 mm or more.
lithological	Description of the features of sedimentary rocks such as colour, grain size and composition
lithology	General description relating to the physical composition of rock forming materials
LOM	Life of mine
loose cubic metre	The volume in cubic metres of excavated materials after being disturbed; normally applied to materials in stockpiles, in haulage trucks and on conveyors

losses, geological	Ore lost due to unpredictable geology
losses, mining	Ore lost due to inefficiency in mining operations
m	Metre
magnetic survey	A geophysical technique that measures the earth's magnetic field and its changes
MBGS	McElroy Bryan Geology Services, geology consultants
mm	Millimetres
MMC	Minarco-MineConsult, a subsidiary of Runge Limited, mining consultants
moisture, air dried	Moisture in the analysis sample (as determined) or the residual moisture in equilibrium with the prevailing laboratory conditions
moisture, as received	Moisture determined on the as-received coal.
moisture, bed	In situ moisture; natural moisture content of the coal in the seam, that exists as an integral part of the coal seam in its natural state.
moisture, equilibrium	Moisture in a coal sample after attaining equilibrium at a temperature of 30 °C and a humidity of 97 % (by mass fraction).
moisture, free	Moisture that is lost by the coal in the course of attaining approximate equilibrium with the atmosphere to which it is exposed.
moisture, inherent	Moisture that exists as part of the coal seam in its natural state. In the case of most coals, the inherent moisture may be equated to the bed moisture and to the total moisture. In South Africa however, the term inherent moisture generally refers to the moisture in the analysis sample or the residual moisture.
moisture, in situ	Bed moisture; natural moisture content of the coal in situ in the seam, that exists as an integral part of the coal seam in its natural state.
moisture, residual	Moisture content that remains in the coal after it has been air-dried at room temperature and that can be removed by heating at 105 °C.
moisture, surface	The difference between total moisture and residual moisture.
Mbcm	million bank cubic metres
Mbcmpa	million bank cubic metres per year
Mt	million metric tonnes
Mtpa	million metric tonnes per year
MUS$	million US dollars
MW	mega (million) watts
Mylec	AB Mylec, coal quality/processing consultants

outcrop	An exposure of strata projecting through the overlying cover of detritus and soil
overburden	Strata that lies above the coal seam
paleo	Ancient reference to past geological times
paleozoic	An era of geological time from about 570 to 225 million years ago
PCI	Pulverized Coal Injection
Permian	The period from 280 to 225 million years ago. It is sometimes considered part of the Carboniferous period. It is part of the Paleozoic era
ply	A layer of a coal seam of distinguishing properties formed from different plant and sediment material deposited separately
£	British pounds
Project	A coal deposit which is in the pre-operating phase of planning and/or development and may be brought into operation subject to feasibility and approvals processes
Quaternary	The period following the Tertiary extending to the present
reject	The material extracted from the ROM coal feed during cleaning
relative density (RD)	
Reserves, Probable	As per Chapter19, "*..those measured and/or indicated mineral resources which are not yet "proved" but of which detailed technical and economic studies have demonstrated that extraction can be justified at the time of the determination and under specific economic conditions;*"
Reserves, Proved	As per Chapter19, "*..those measured mineral resources of which detailed technical and economic studies have demonstrated that extraction can be justified at the time of the determination, and under specified economic conditions,*"
Resources, Indicated	As per Chapter19, "*..that portion of a mineral resource for which quantity and quality can only be estimated with a lower degree of certainty than for a measured mineral resource because the sites used for inspection, sampling and measurement are too widely or inappropriately spaced to enable the material or its continuity to be defined, or its grade throughout to be established.*"
Resources, Inferred	A third classification of Mineral Resources with lower confidence than both Measured Resources and Indicated Resources which is defined in many international mineral estimating codes; including both the JORC (Australian) and the SAMREC (South African) codes. Note that Inferred Resources are not mentioned in Chapter19.
Resources, Measured	As per Chapter19, "*..that portion of a mineral resource for which tonnage or volume can be calculated from outcrops, pits, trenches, drill-holes or mine workings, supported where appropriate by other exploration techniques. The sites for inspection, sampling and measurement must be so spaced that the geological character, size, shape, quality and mineral content will be established with a high degree of certainty;*"
Resources, Mineral	As per Chapter19, "*..include metallic and non-metallic ores, mineral concentrates, industrial minerals, construction aggregates, mineral oils, natural gases, hydrocarbons and solid fuels including coal;*"
ROM	Run-of-mine, which defines a state of material which has been mined but not yet processed

sandstone	A sedimentary rock comprising sand set in a matrix of silt or clay united by a cementing material. Contains 85%-90% quartz
seam	A stratum of coal
shaft	A vertical or inclined excavation, commonly from the surface, of limited size, and normally used for mining, drainage, ventilation, people access, and delivery of mined materials to the surface
specific energy	The heat of combustion of a unit quantity of coal; expressed in either British thermal units per pound (Btu/lb), kilocalories per kilogram (kcal/kg) or megajoules per kilogram (MJ/kg). See "*calorific value*".
strip ratio	The ratio (bcm/t) of volume of waste mined (in bcm) to weight of coal mined (in t) in an open cut mining operation
sub-basin	A regional low area within a wider basin structure
subcrop	A mineral occurrence, including coal seams and plies, which comes near the surface but is covered by a thin layer of non-mineral overburden
syncline	A line or axis towards which strata dip or slope down from both directions
t	metric tonnes
tailings	The waste material remaining from finely ground ore from which the valuable minerals have been extracted
t/bcm, t/cm	Metric tonnes per bcm, or per cm, usually a measure of density
TC	Total carbon
tectonic	Relates to the movement and structural features of the earth's crust
Tertiary	The period between about 65 million and 2 million years ago
TM	Total moisture
tpa	metric tonnes per year
tph	metric tonnes per hour
Triassic	The period from 225 to 190 million years ago. It is part of the Mesozoic era
TS	Total sulphur
tuff	A general term for consolidated material ejected from a volcanic vent
US$	United States dollars
wash plant	A process plant designed to size and clean ores to produce beneficiated ore with higher grade and/or predetermined sizes
waste	Rock that is not part of the coal seam

VALMIN Code	"*Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports, The VALMIN Code, 2005 Edition*", prepared by the VALMIN Committee, a joint committee of The Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Mineral Industry Consultants Association with the participation of the Australian Securities and Investment Commission, the Australian Stock Exchange Limited, the Minerals Council of Australia, the Petroleum Exploration Society of Australia, the Securities Association of Australia and representatives from the Australian finance sector.



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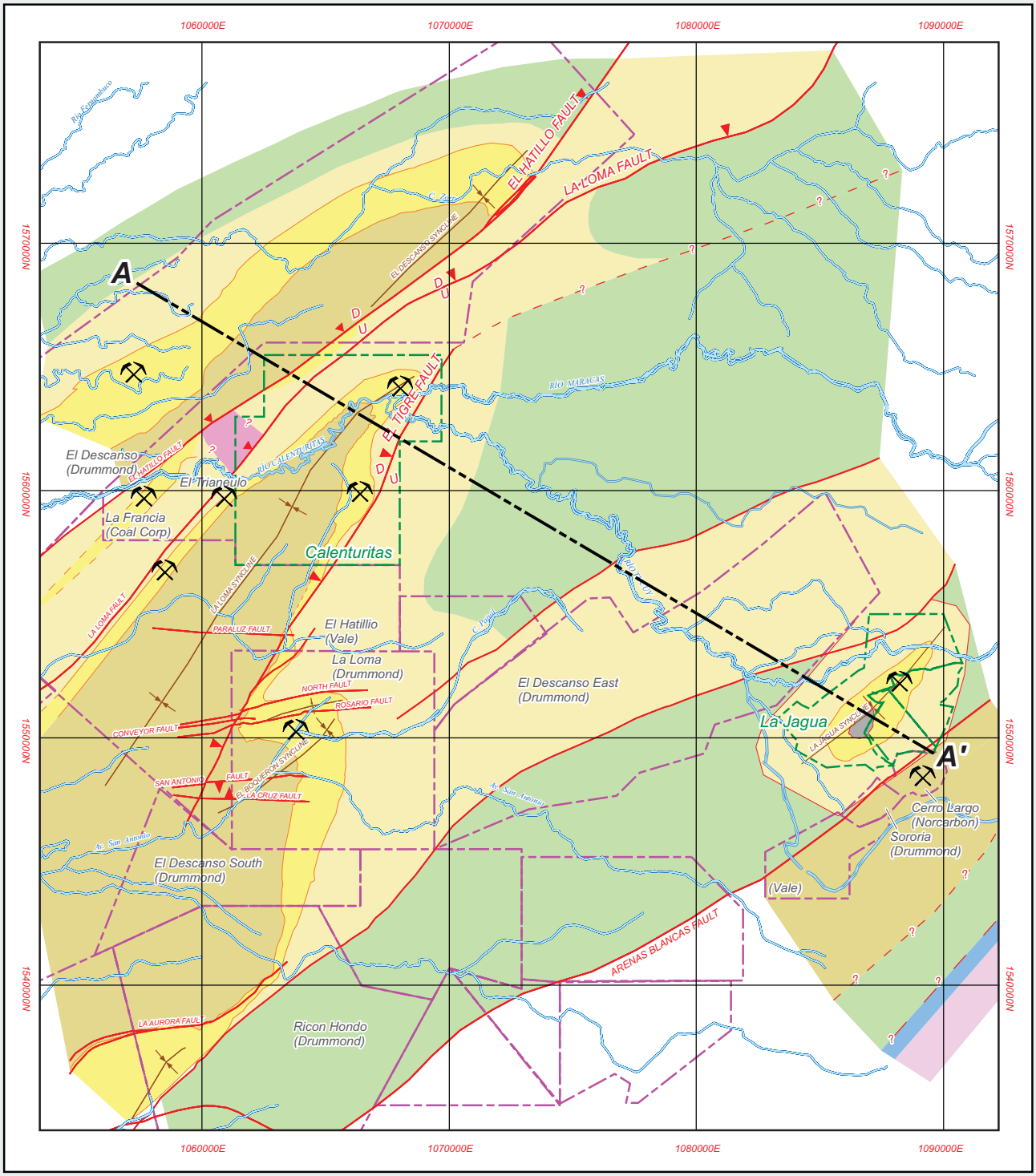
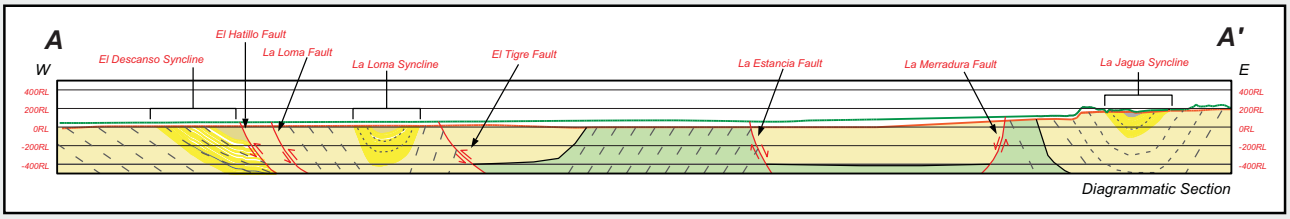
GLENCORE IPO COLOMBIA

GENERAL LOCATION PLAN

Date: May 2011 | Job No: ADV-SY-03728 | Figure: 1





LEGEND

- Fault
- Syncline
- Anticline
- Subcrop
- Prodeco Leases
- Other Leases
- Rivers
- Current operations
- Los Cuervos Fm
  - Upper member
  - Middle member Coal bearing unit
  - Lower member
- Barco Fm
- Colluvium
- Cuesta Formation
- Cretaceous undifferentiated
- Jurassic
- Paleozoic

0 2.5 5 10
kilometres

	Glencore International plc
	GLENCORE IPO COLOMBIA
SOLID GEOLOGY - CESAR BASIN	
Date: May 2011	Job No: ADV-SY-03728 | Figure: 2

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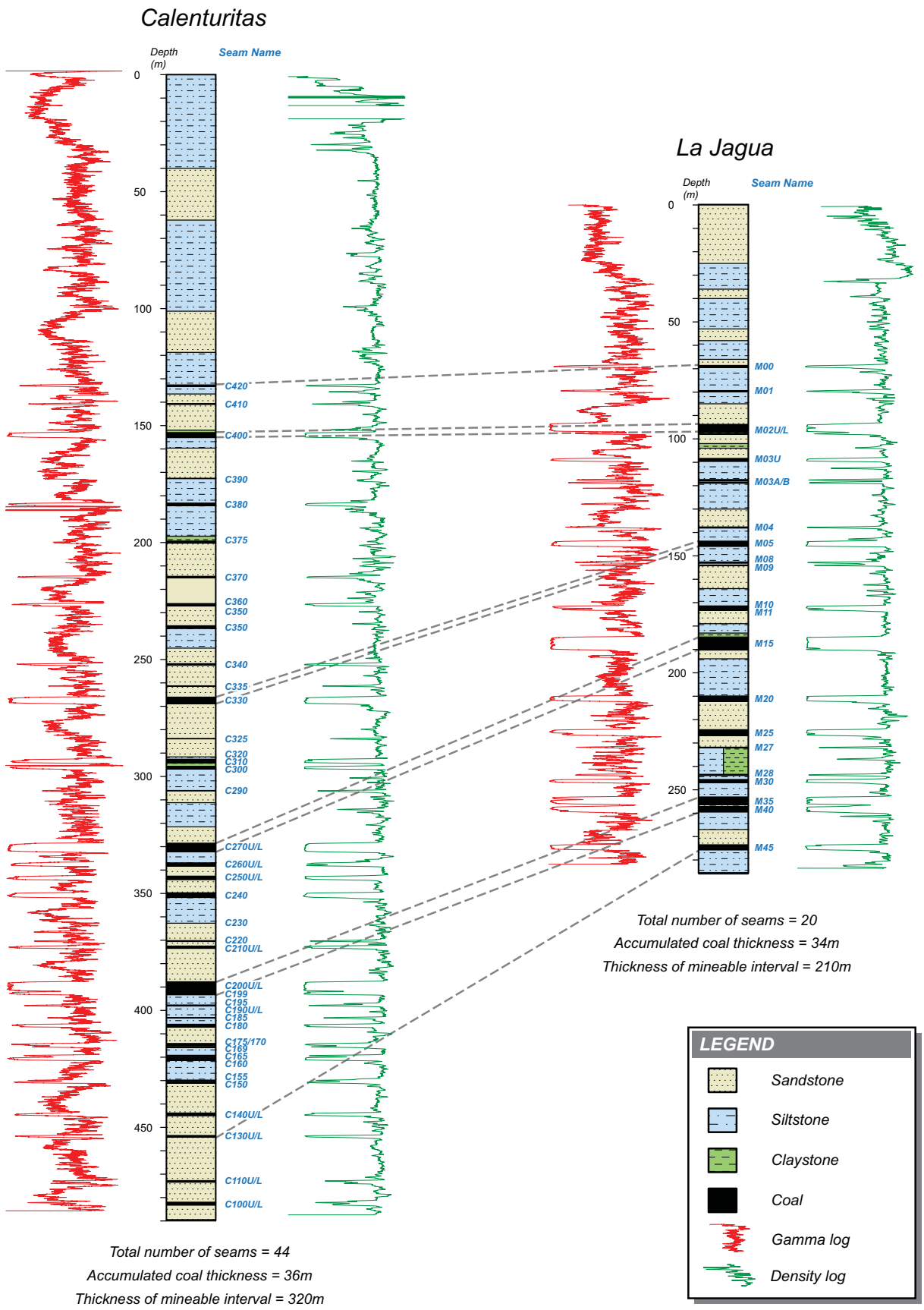

	Glencore International plc
	GLENCORE IPO COLOMBIA
STRATIGRAPHIC SECTIONS AND COAL SEAM CORRELATION	
Date: May 2011	Job No: ADV-SY-03728 | Figure: 3

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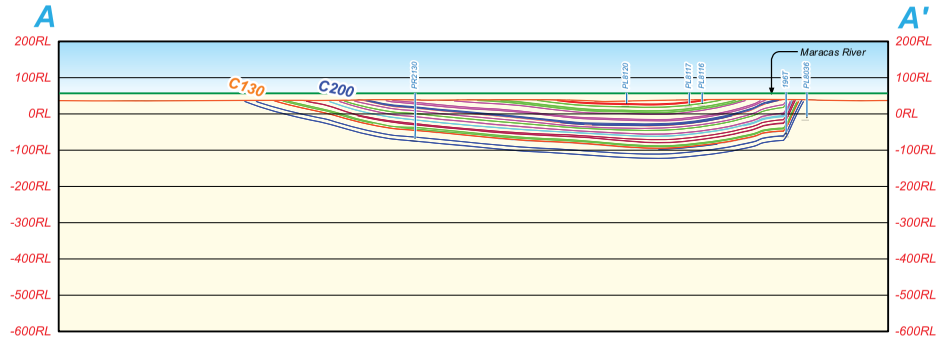

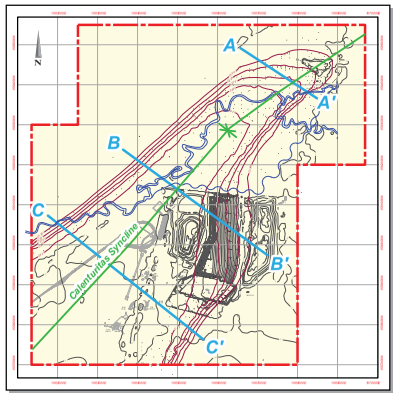

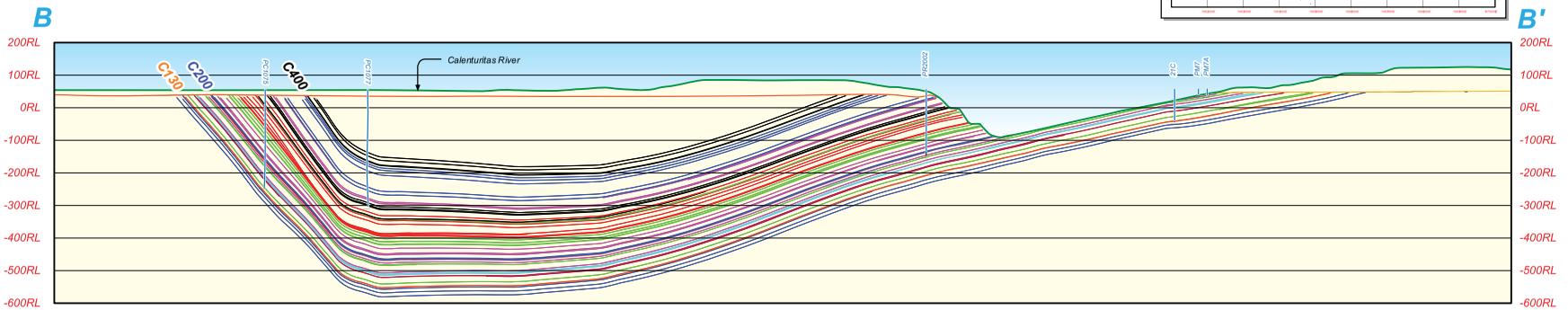

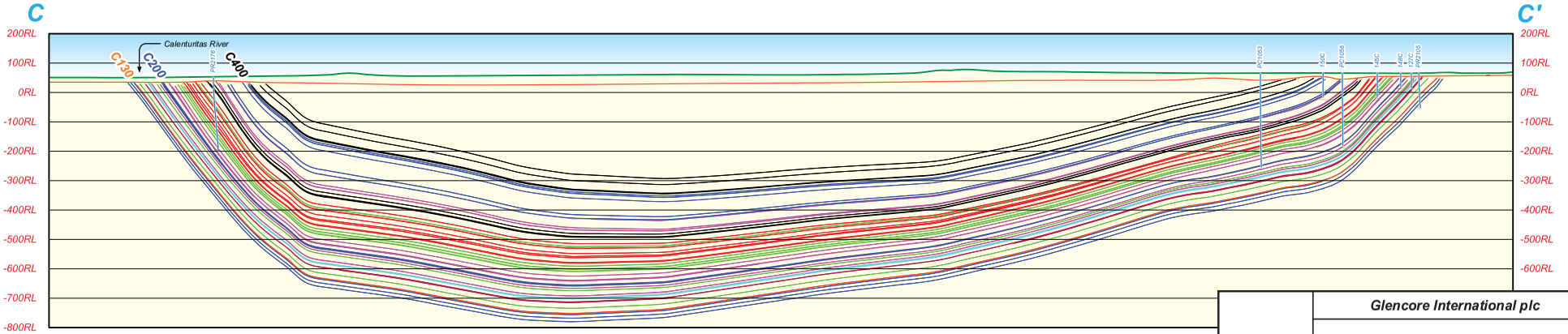

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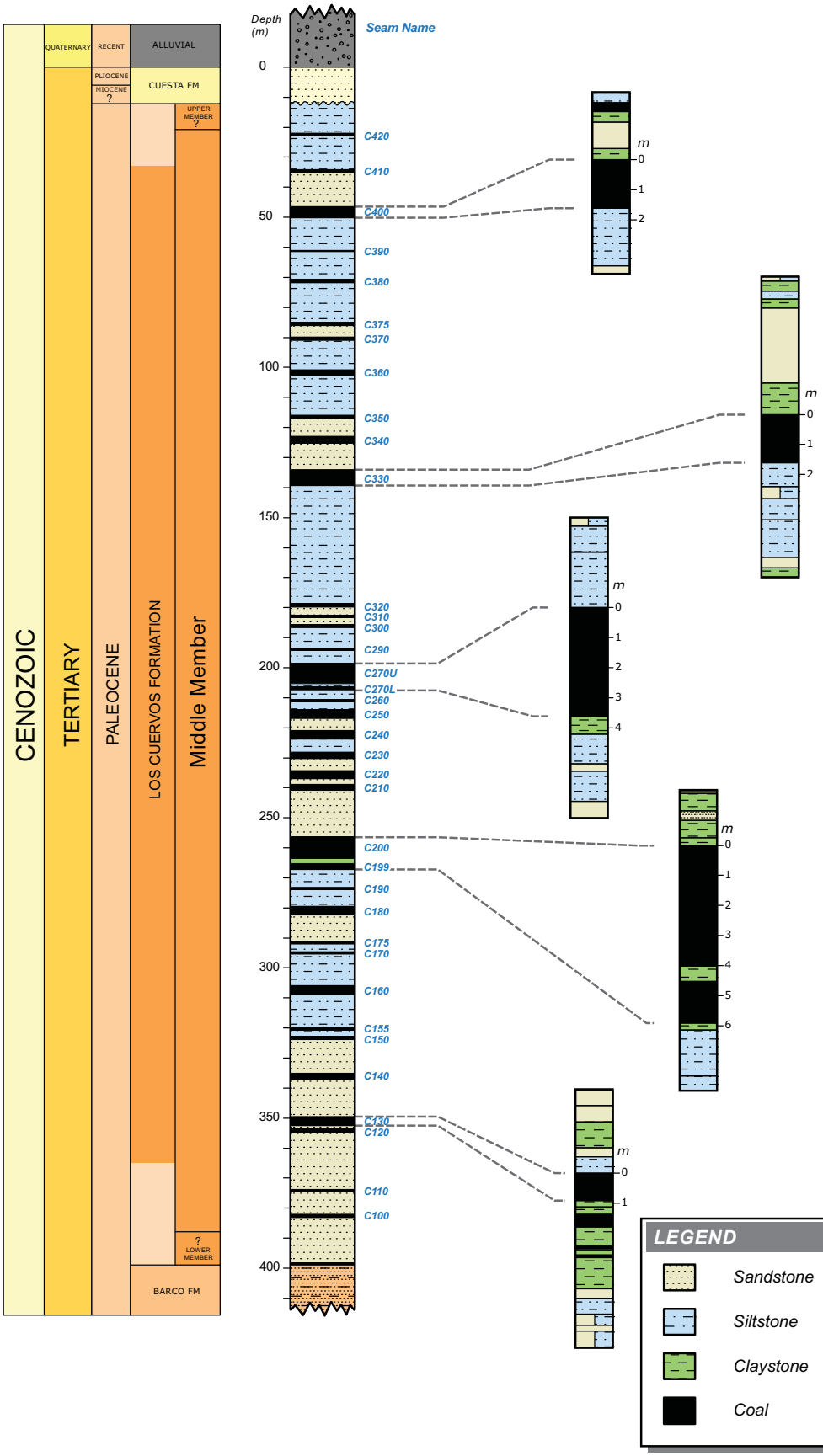
CALENTURITAS GEOLOGICAL SECTIONS

Date: May 2011	Job No: ADV-SY-03728	Figure: 4



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CALENTURITAS DIAGRAMMATIC STRATIGRAPHIC SECTIONS

Date: May 2011 | Job No: ADV-SY-03728 | Figure: 5

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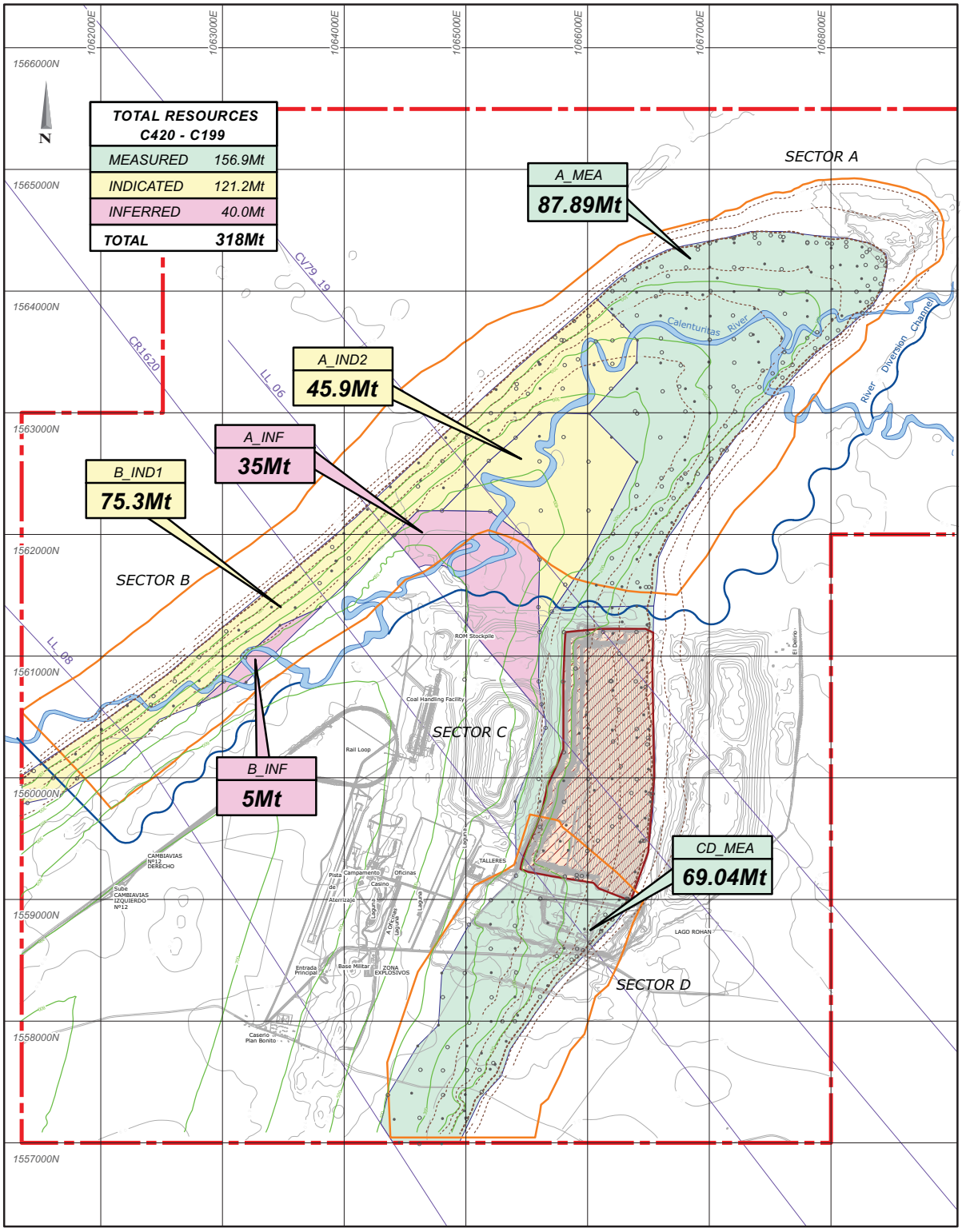

LEGEND

- Core hole
- Non core hole
- Seam subcrop
- Depth of cover to C130
- Mined Area
- LOM Pit Shell
- Seismic line
- River
- River diversion

Resources

- Measured
- Indicated
- Inferred

0 1 2km

kilometres

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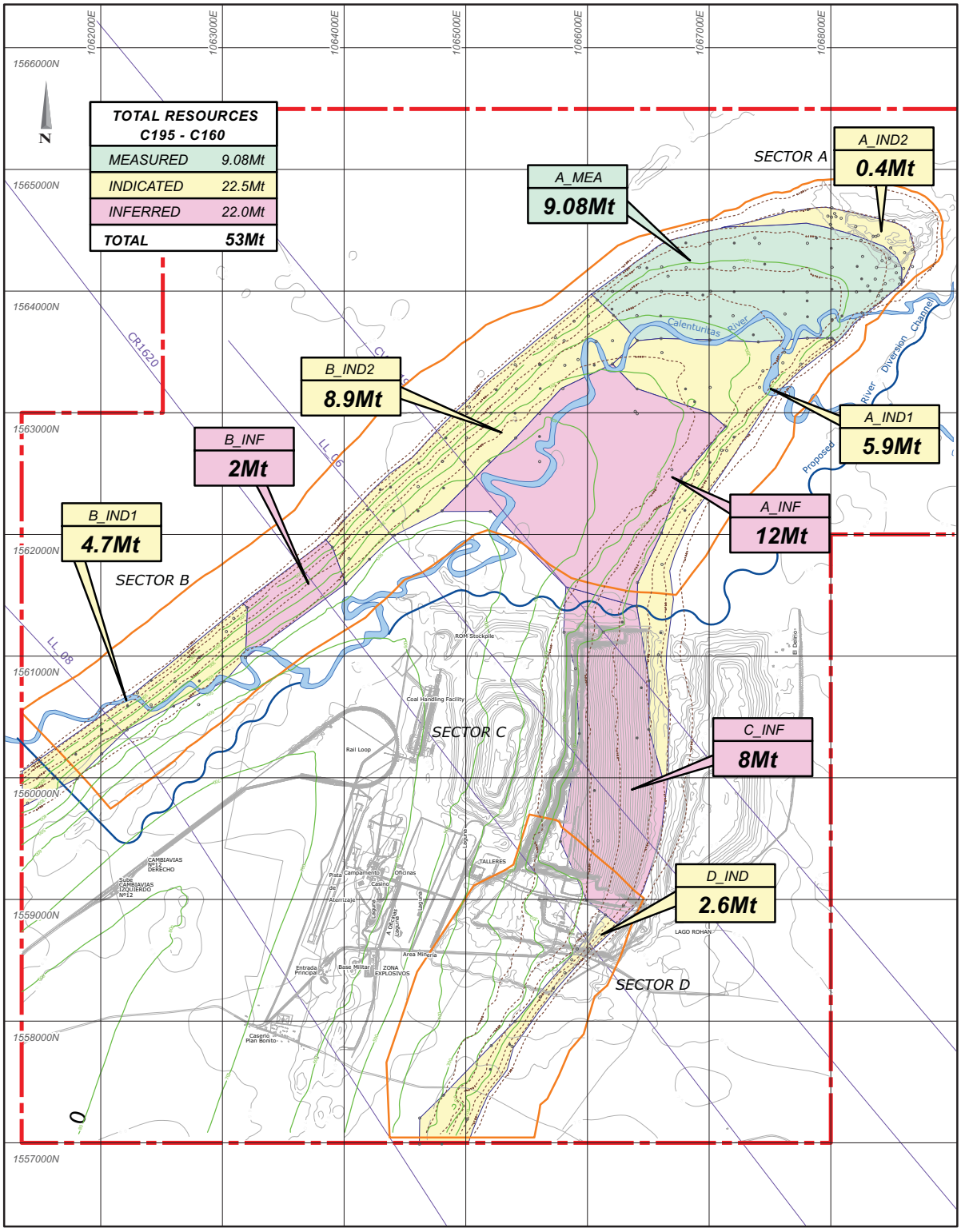
CALENTURITAS COAL RESOURCE AREAS C420 TO C199 SEAMS

Date: May 2011 | Job No: ADV-SY-03728 | Figure: 6



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CALENTURITAS COAL RESOURCE AREAS C195 TO C160 SEAMS	
Date: May 2011	Job No: ADV-SY-03728 | Figure: 7

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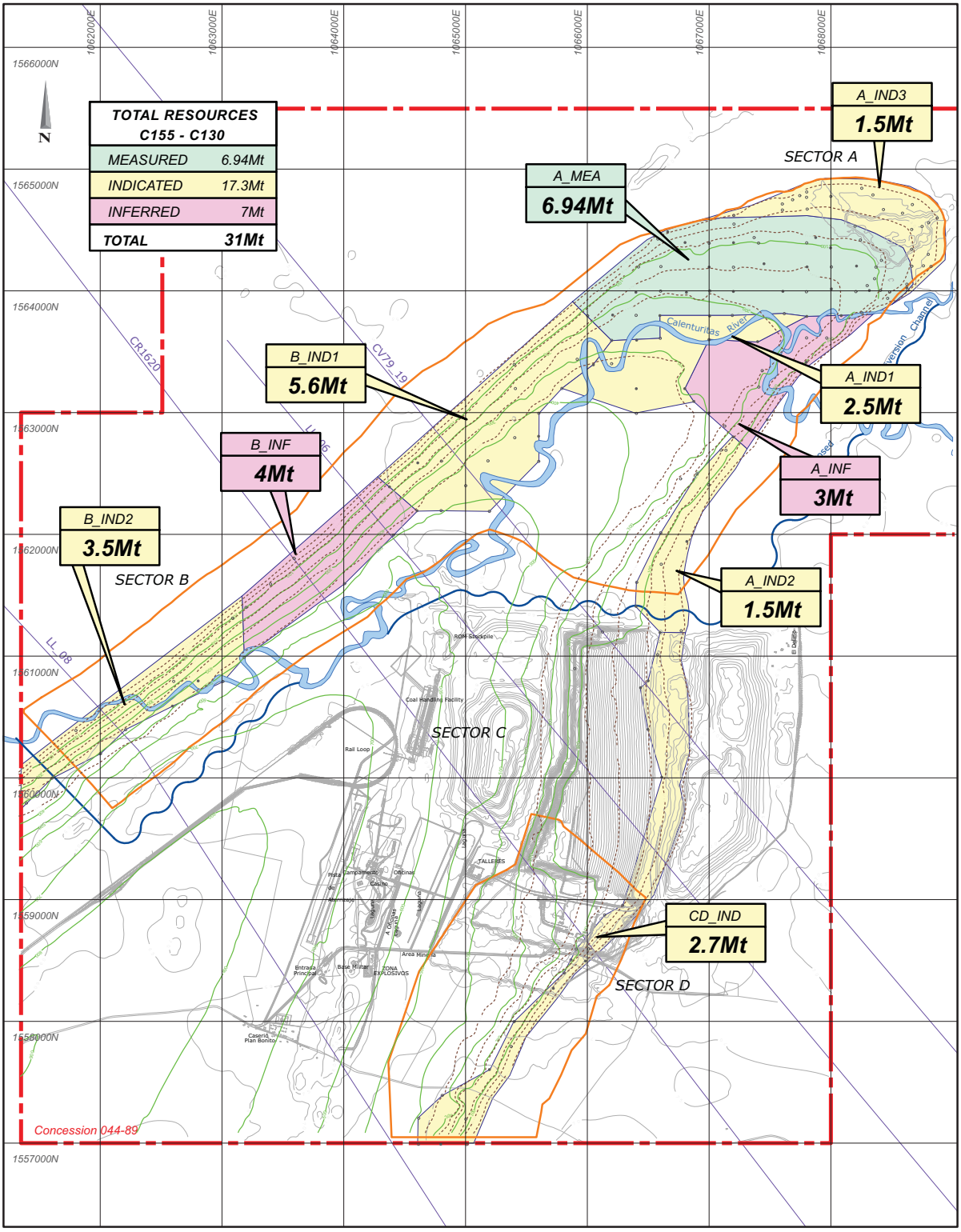

LEGEND

- Core hole
- Non core hole
- Seam subcrop
- Depth of cover to C130
- LOM Pit Shell
- Seismic line
- River
- River diversion

Resources

- Measured
- Indicated
- Inferred

0 1 2km

kilometres

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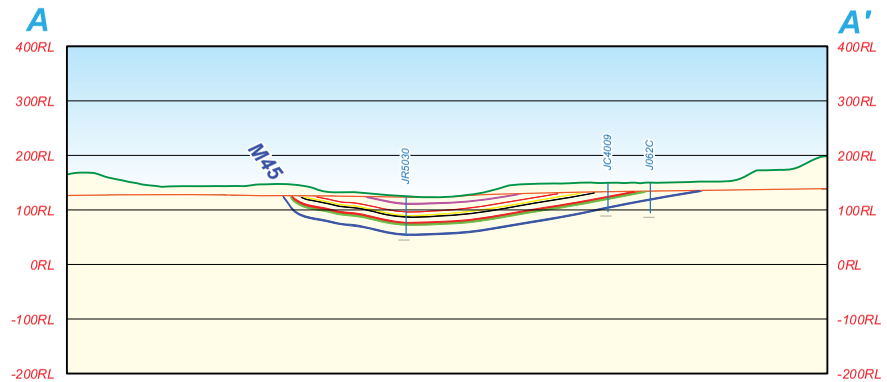
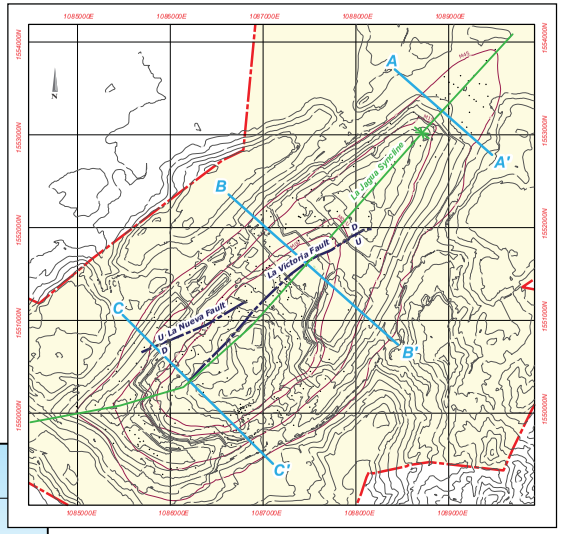
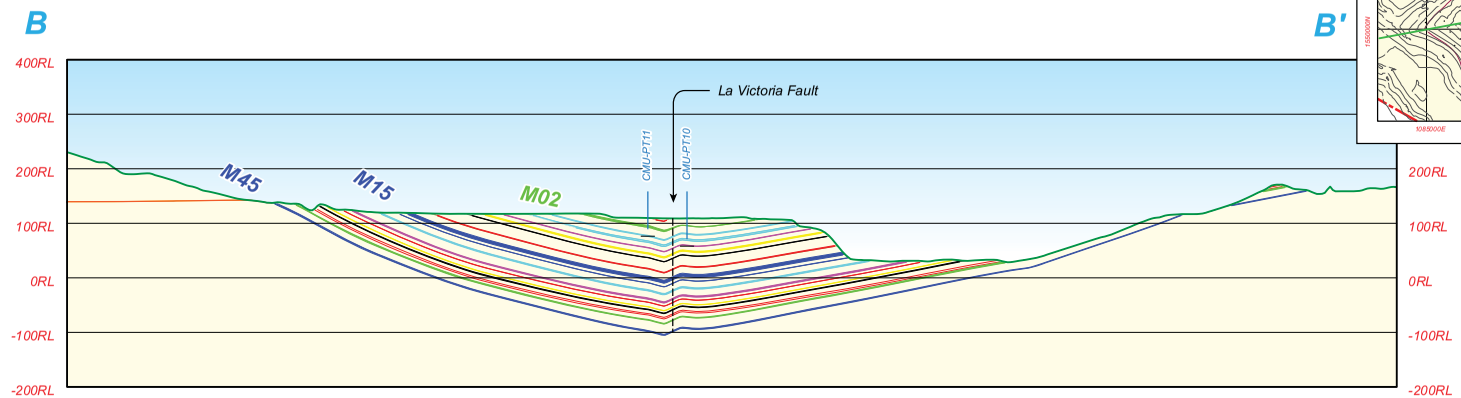
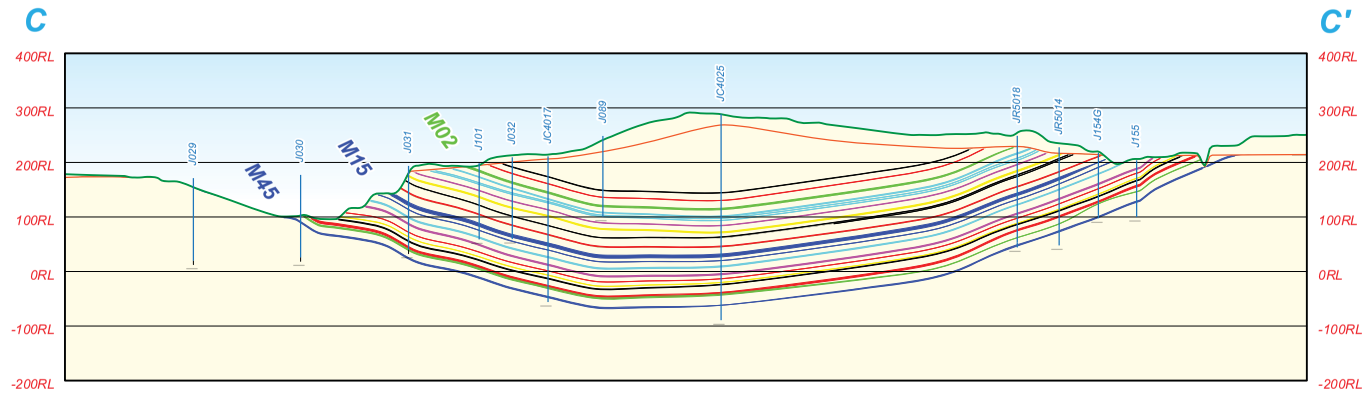
CALENTURITAS COAL RESOURCE AREAS C155 TO C130 SEAMS

Date: May 2011	Job No: ADV-SY-03728	Figure: 8









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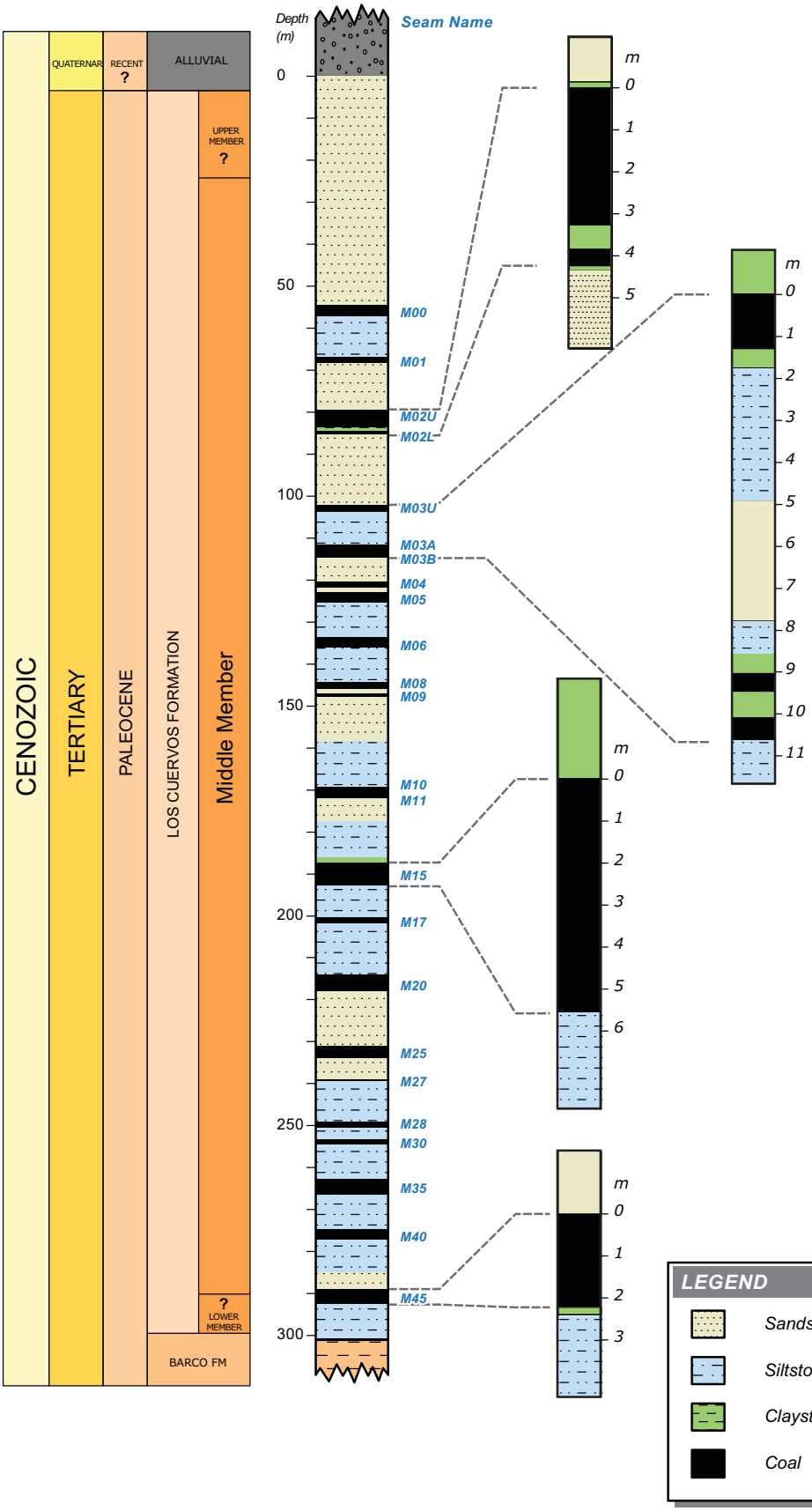
	GLENCORE IPO COLOMBIA
LA JAGUA GEOLOGICAL SECTIONS	
Date: May 2011	Job No: ADV-SY-03728 | Figure: 9



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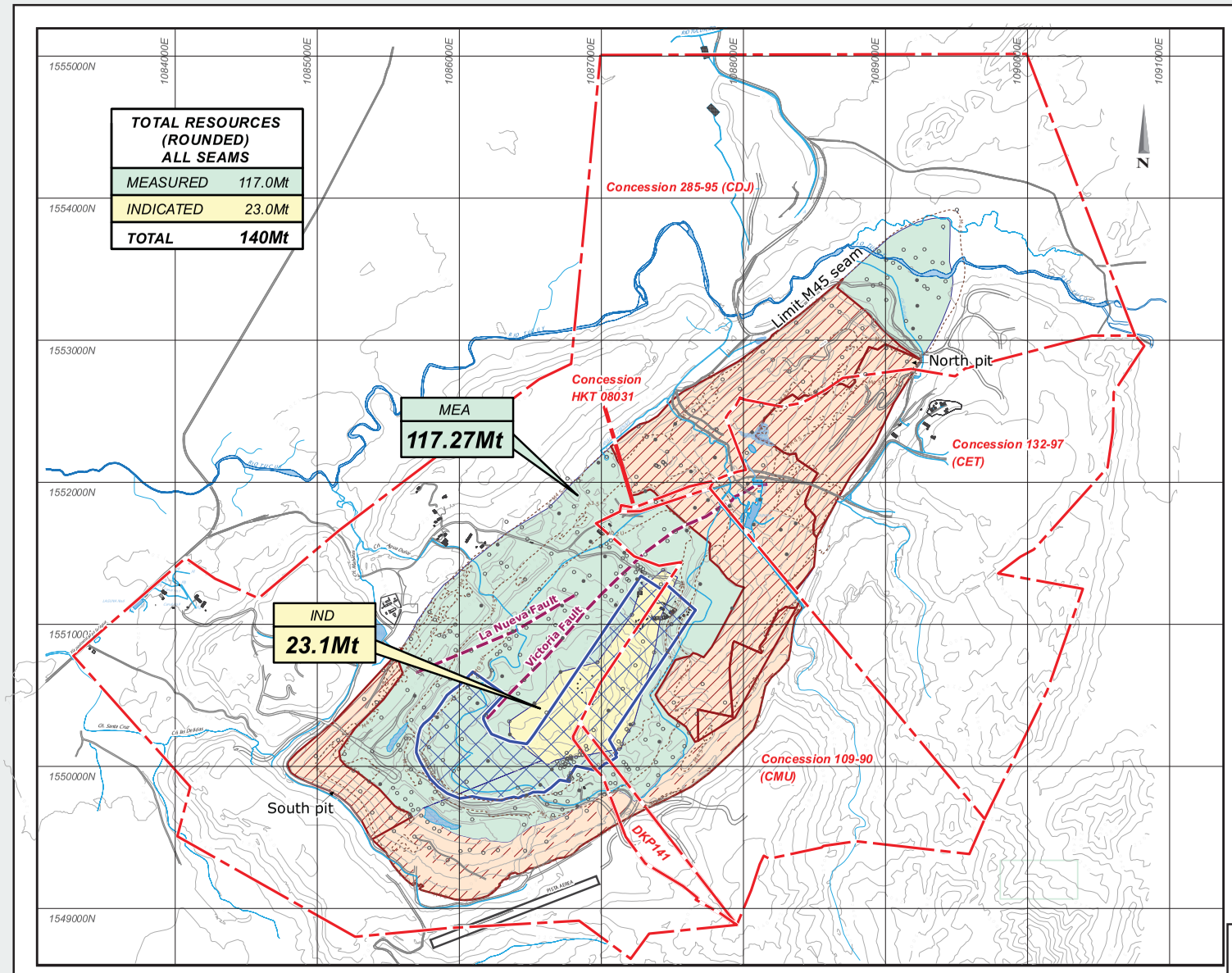
LA JAGUA DIAGRAMMATIC STRATIGRAPHIC SECTIONS

Date: May 2011	Job No: ADV-SY-03728	Figure:10



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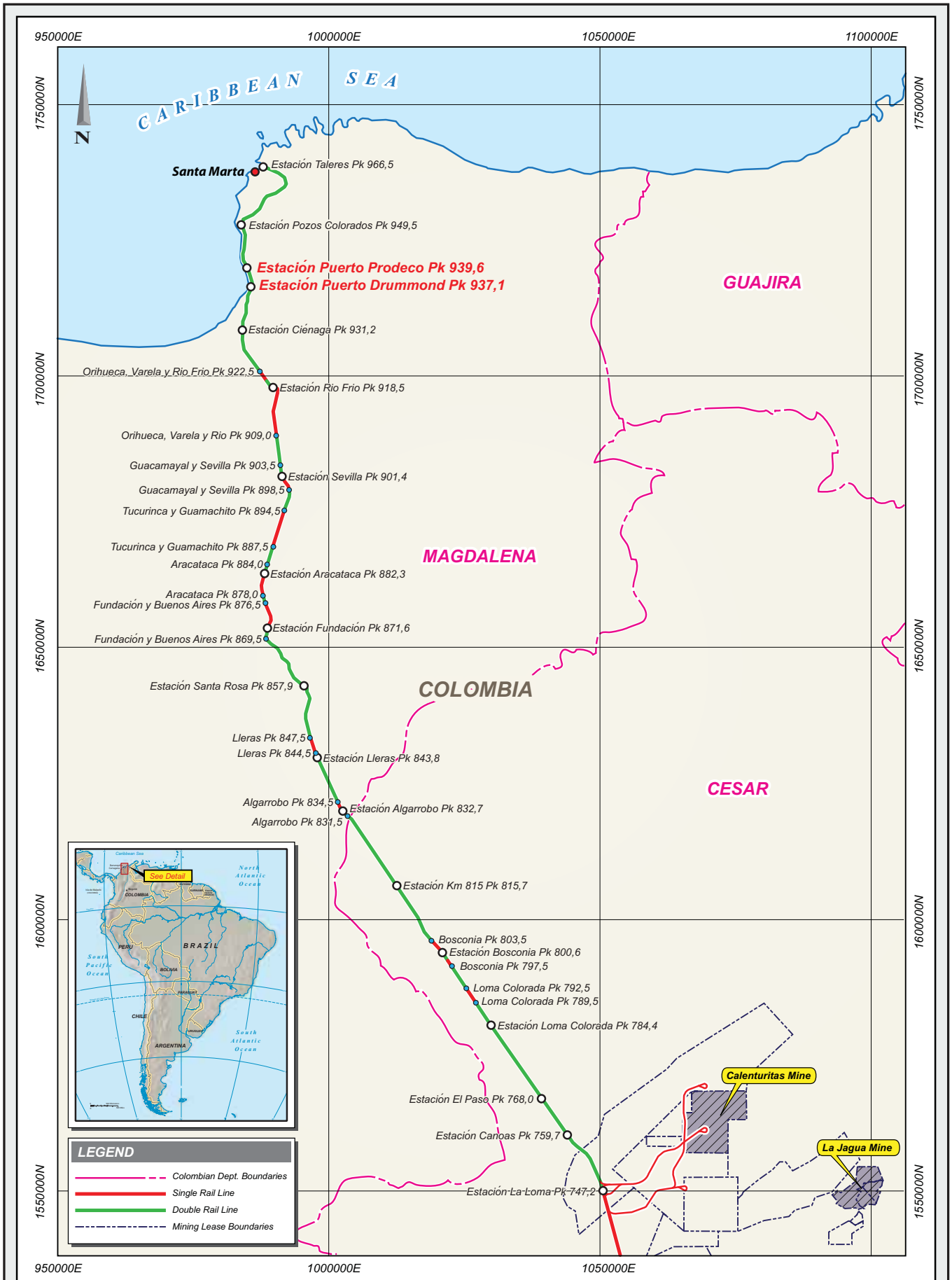
LA JAGUA COAL RESOURCE AREAS

Date: May 2011 | Job No: ADV-SY-03728 | Figure: 11



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COAL TRANSPORT RAIL LINE

Date: May 2011 | Job No: ADV-SY-03728 | Figure: 12

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SECTION XIV: INDEPENDENT TECHNICAL REPORTS

SUB-SECTION C: KATANGA REPORT

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04 May 2011

GLENCORE INTERNATIONAL PLC

Mineral Expert's Report: Kamoto Copper Company (KCC)

Submitted to:
Glencore International AG
Baarermattstrasse 3
P.O.Box 777
CH-6341 Baar
Switzerland

Contributing Authors	Company Name	Qualification
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Peter Onley	Golder Associates Perth	MBA MSc BSc(Hons) FAusIMM CP
Willem van der Schyff	Golder Associates Africa	Pri Sci Nat, BSc Hons (Geo), GDE (Mining Eng), GSSA
Eddie Cunningham	Golder Associates Africa	Dip. Arch. Tech.
Spencer Eckstein	Golder Associates Africa	LLB MBA
Jaco Lotheringen	Ukwazi Mining Solutions	Pr. Eng Mining
James Nieuwenhuys	SNC Lavalin	
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Report Number. 12971-10169-2

Distribution:

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REPORT

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Golder Associates

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04 May 2011 12971_Lett_009

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25 Cabot Square
London E14 4QA

MINERAL EXPERT'S REPORT: KATANGA MINING LIMITED

Dear Sirs

PURPOSE OF REPORT

Golder Associates Africa (Pty) Ltd ("GAA") has been commissioned by Glencore International AG ("Glencore") on behalf of Glencore International plc (the "Company"), which is expected to be the ultimate parent company of the group, to prepare a Mineral Expert's Report ("MER") in respect of the mining assets owned by and operated by Katanga Mining Limited ("KML") (the "Material Assets"), a company in which Glencore has an interest.

KML owns a 75% equity interest in Kamoto Copper Company SARL ("KCC") which owns the Material Assets which are the subject of this MER.

The Material Assets comprise of the following:

- Kamoto Underground Mine ("KTO");
- T17 Open Pit;
- KOV Open Pit;
- Mashamba East Open Pit;
- Tilwezembe Open Pit;
- Kananga Mine;
- Extension of Kananga Mine;
- The Kamoto Concentrator ("KTC"); and

- Luilu Metallurgical Plant ("Luilu Refinery").

This MER has been prepared by a team of Competent Persons with each team member possessing the appropriate technical and professional qualifications.

This report, which summarises the findings of GAA's review, accords with the requirements set out in the United Kingdom Financial Services Authority's Prospectus Rules ("Prospectus Rules") and has been prepared having regard to the recommendations for the consistent implementation of the European Commission's Regulation on Prospectuses No. 890/2004 (the European Securities and Markets Authority ("ESMA") recommendations) published by the Committee of European Securities Regulators (now the ESMA, as updated on 23 March 2011 following the publication of a consultation paper in April 2010 in relation to content of prospectuses regarding mineral companies) and Chapter 18 of the Hong Kong Listing Rules.

GAA understands that this MER will be included as part of the prospectus (the "Prospectus") to be published in connection with a global offering of shares and the admission of the ordinary shares of the Company to the Official List of the United Kingdom Financial Services Authority and the admission of such shares to trading on the London Stock Exchange plc's market for listed securities and the main board of the Hong Kong Stock Exchange Limited (together, "Admission").

This MER provides an audit of the mineral resource estimates, classification of resources and reserves (to the extent applicable) and evaluation of the Material Assets.

The practices and estimation methods undertaken by GAA are in accordance with the criteria for internationally recognised reserve and resource categories of the "Australasian Code for Reporting Mineral Resources and Ore Reserves" (2004) 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").

In addition, GAA is of the opinion that such practices and estimations accord with the requirements set out in the Prospectus Rules in conjunction with the ESMA recommendations. In this report, all reserves and resources estimates, initially prepared by KCC in accordance with the JORC Code, have been substantiated by evidence obtained from GAA's site visits, interviews, own data collection, analysis and modelling. Where appropriate reliance has been placed on the work of other experts, in particular the Independent Technical Report on KML's Material Assets Report (March 2009) compiled by SRK Consulting, which was prepared in order to ensure compliance with the National Instrument 43-101: Standards of Disclosure for Mineral Companies ("NI 43-101"). Only proven and probable reserves have been valued, which accords with the requirements set out in the Prospectus Rules in conjunction with the ESMA recommendations. Other assets of KML, which include extensive resources, have not been included in the valuation.

CAPABILITY AND INDEPENDENCE

GAA has 50 years of mining and engineering expertise built up on 6 continents. GAA operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to clients. GAA has received, and will receive, professional fees for its preparation of this report. However, neither GAA nor any of its directors, staff or sub-consultants who contributed to this report has any interest in:

- the Company, Glencore, KML, KCC or any of their subsidiaries; or
- the Material Assets reviewed.

Drafts of this report were provided to Glencore, KML and KCC, but only for the purpose of confirming both the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

For the purposes of Prospectus Rule 5.5.3R(2)(f), GAA is responsible for this report as part of the Prospectus and declares that it has taken all reasonable care to ensure that the information contained in this report is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect

its import. This declaration is included in the Prospectus in compliance with item 1.2 of Annex I and item 1.2 of Annex III of the Prospectus Directive Regulation.

This MER has been prepared based on a technical and economic review by a team of consultants and associates sourced from the GAA's Johannesburg offices. Details of the qualifications and experience of the consultants who carried out the work are included in the MER.

METHODOLOGY

The methodology used to compile this report consists of the following:

- site visits conducted by GAA representatives between October and December 2010 to inspect the mine site (open pits and underground workings), plant and processing facilities, waste dumps and tailings facilities in order to audit technical content of previous Technical Reports and studies conducted for and on behalf of KML and where necessary for GAA staff to evaluate current requirements and future developments;
- interviews with various senior KCC managers;
- GAA own data analysis, engineering, financial, resource, mining and resource modelling; and
- reliance on previous technical studies and experts reports.

The information contained in this report is current and effective from 1 January 2011, unless otherwise indicated. The results of GAA evaluation are as set out in this MER.

All opinions, findings and conclusions expressed in this report are those of GAA and its sub-consultants.

DECLARATIONS

GAA will receive a fee for the preparation of this MER in accordance with normal professional consulting practice. This fee is not contingent on the outcome of Admission and GAA will receive no other benefit for the preparation of this report. GAA does not have any pecuniary or other interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the mineral resources, ore reserves and the valuation of Material Assets.

GAA does not have, at the date of this report, and has not previously had any shareholding in or other relationship with the Company, Gelncore, KML or KCC and consequently considers itself to be independent of the Company, Glencore, KML and KCC.

The results of the technical and economic reviews are summarised herein.

GLOSSARY OF TERMS

Defined and technical terms used in this report are set out in APPENDIX A of this MER.

QUALIFICATIONS OF CONSULTANTS

The individuals listed in the table below, have provided input to this MER are Qualified/ Competent Persons as defined in the JORC Code, the Prospectus Rules, the ESMA recommendations and Chapter 18 of the Hong Kong Listing Rules and have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

Name	Company	Qualification
Peter Onley	GAA	MBA MSc BSc(Hons) FAusIMM CP Peter Onley has more than 40 years experience in the mining industry holding qualifications in geology, geotechnical engineering and business.

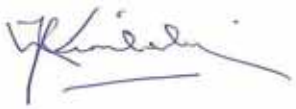
Name	Company	Qualification
		He has worked in a variety of roles, starting as an exploration geologist, a mining geologist, exploration manager, mineral industry consultant, business manager and director of two Australian listed companies. He has worked as a mining industry consultant for over 25 years. He was formerly a director of Golder Associates Pty Ltd employing more than 800 staff in Australia. He has consulted to the industry on a wide range of commodities including diamonds, gold, uranium, iron-ore, bauxite, base metals and both sulphide and lateritic nickel together with some minor commodities such as molybdenum and tungsten. He has for some years been a member of the Geological Survey Liaison Committee which reviews and advises on future work programs for the Geological Survey of Western Australia. He is also a member of the AusIMM Geoscience Committee.
Willem van der Schyff	GAA	BSc (Geology), GDE (Mine Engineering) Willem is an Associate with Golder Associates, the Business Unit Leader for the Mining Services Business Unit and a geologist specialising in resource modelling and evaluation. He has 20 years experience on diverse commodities, ranging from Iron Ore, Coal, Heavy Mineral Sands, Base Metals, Gold, Bauxite and Industrial Minerals, on five continents. This experience includes exploration geology, mining geology and resource modelling and estimation. He is a registered Professional Geologist with the South African Council for Natural Scientific Professions and is a member of the Geological Society of South Africa.
Jaco Lotheringen	Ukwazi	B Eng Mining Engineering (UP), Mine Manager's Certificate of Competency Jaco is currently a director of Ukwazi Mining and it its senior mine engineer. He has 12 years mining experience and has been involved in resource estimates, mine feasibility and mine design studies for the past 6 years for major mining companies such as Kumba, BHP Billiton and Anglo Platinum. His professional memberships include: Registered as a Professional Engineer at Engineering Council of South Africa (20030022); Registered as a Member at South African Institute of Mining and Metallurgy (SAIMM) (701237). Member of the Institute of Directors in South Africa.

Name	Company	Qualification
		Jaco has specific commodity experience in precious metals (gold, platinum), base metals (iron and copper) and minerals such as coal.
Anthony James Nieuwenhuys	SNC Lavlin	BSC (Eng) MDP Anthony James Nieuwenhuys is Managing Director – SNC-Lavalin South Africa with over 30 years of extensive experience in managing international multi-disciplinary projects in the mining, metallurgical and beverage sectors. This experience includes both technical and financial aspects of major projects. Mr Nieuwenhuys' management capabilities include sourcing and arranging financing for projects, strong organizational and interpersonal skills, leadership, initiative, marketing, managing a multi-disciplinary engineering company and the ability to work in different business environments. On the technical side, James has extensive experience in the design, construction and operational aspects of most metallurgical facilities and has specific mining and commodity experience in respect of gold, nickel, diamonds and cobalt.

This report was prepared by GAA in order to support the mineral reserve and resource information contained in the Prospectus. The project manager of the Technical Report was Spencer Eckstein and project director was Frank Wimberley.

Yours Faithfully,

GOLDER ASSOCIATES AFRICA (PTY) LTD.



Frank Wimberley
Project Director

Willem van der Schyff
Competent Person

SE/WvdS/kf

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

Golder Associates Africa (Pty) Ltd ("GAA") was commissioned by Glencore International AG ("Glencore") on behalf of Glencore International Plc (the "Company") which is expected to be the ultimate parent company of the group, in November 2010 to prepare a Mineral Experts Report ("MER") in respect of the Material Assets (as described below) owned and operated by, Katanga Mining Limited ("KML"), a company in which Glencore has a majority shareholding.

KML owns a 75% equity interest in Kamoto Copper Company SARL ("KCC") which owns the Material Assets, which are the subject of this report.

The Material Assets comprise of the following

- Kamoto Underground Mine ("KTO")
- T-17 Open Pit
- KOV Open Pit
- Mashamba East Open Pit
- Tilwezembe Open pit
- Kananga Mine
- Extension of Kanaga Mine
- The Kamoto Concentrator ("KTC")
- The Luilu Metallurgical Plant ("Luilu Refinery")

Further details of the Material Assets are set out in the paragraphs below

The purpose of the MER is to provide a technical report which evaluates the nature and value of the Material Assets held by KCC in order to assist Glencore in listing on the London and Hong Kong stock exchange.

The MER is based on the KML Technical Report dated 17 March 2009 compiled by SRK Consulting (South Africa) (Pty) Limited which has been up-dated to confirm current resource and reserve statements and to include amendments to mine plans and project development activities. The MER also includes observations and comments from GAA following site audits conducted in December 2010 to determine environmental compliance with Equator Principles and to assess closure costs.

This MER has been prepared in accordance with the Australasian Code for Reporting of Exploration Results Mineral Resources and Ore Reserves (2004) 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. In respect of the valuations, they have been prepared under the guidelines of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (2005 edition), as prepared by the VALMIN Committee, a joint committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Mineral Industry Consultants Association.

The methodology used to compile this report consists of the following:

- Site visits conducted by GAA representatives between October and December 2010 to inspect the mine site (open pits and underground workings), plant and processing facilities, waste dumps and tailings facilities in order to audit technical content of previous technical reports and studies conducted for and

on behalf of KML and where necessary for GAA staff to evaluate current requirements and future developments;

- Interviews with various senior KCC managers;
- GAA own data analysis, engineering, financial, resource, mining and resource modelling
- Reliance on previous technical studies and experts reports.

The information contained in this report is current and effective from 1 January 2011, unless otherwise indicated. The results of GAA evaluation are set out below.

1.2 Ownership

KML, an entity listed on the Toronto Stock Exchange in Canada (TSX:KAT), holds a 75% stake in KCC a joint venture with La Generale des Carrieres et des Mines ("GCM"), a State-owned mining company in the DRC.

1.3 History

Following the merger of KML and Nikanor PLC ("Nikanor") in January 2008, the Material Assets were held by KML through a 75% equity interest in KCC and a 75% equity interest in DRC Copper and Cobalt Project SARL ("DCP"). The balance of the equity interest in both KCC and DCP was owned by GCM.

In April 2007, prior to the merger of KML and Nikanor, a Commission of Enquiry was formed by the DRC government to review approximately sixty (60) mining agreements entered into by para-statal companies of the Congolese government. The KCC joint venture agreement and the DCP joint venture agreement were included in the mining agreements to be reviewed.

The Commission provided its conclusions in its report made public in November 2007.

KCC and DCP were notified on 11 February 2008 by the DRC Ministry of Mines of the objections and requirements regarding their partnerships with GCM further to the above-mentioned November 2007 report.

In July 2008, GCM and Katanga Finance Limited ("KFL" a 100% subsidiary of KML) entered into a memorandum of understanding under which certain amendments were agreed to be reflected in an amended joint venture agreement and the parties agreed to the merger of KCC and DCP.

In August 2008, the DRC Ministry of Mines issued terms of reference for the renegotiations and/or termination of the mining contracts entered into by KCC and DCP.

Following a number of meetings during the course of the last quarter of 2008 and the first quarter of 2009, GCM , KFL and Global Enterprises Corporate Ltd. ("GEC"), in the presence of KCC, DCP, SIMCO, Katanga Mining Holdings Limited, Katanga Mining Finance Limited and KML (BVI) Holdco Ltd. entered into on 25 July 2009 (which is also its date of entry into force) an agreement (the "Amended Joint Venture Agreement") which resulted in the termination of the original KCC joint venture agreement and DCP joint venture agreement. The merger of KCC and DCP was ratified by Presidential Decree on 27 April 2010.

The consequences of the Amended Joint Venture Agreement on KCC mining rights and equipment installations are;

- The whole of PE525 (comprising 13 carres) and part of PE4958 (i.e. new PE11602 described below and comprising two carres containing the T17 deposit) was transferred to KCC. The Kamoto, Mashamba East and T17 deposits and any extensions of these deposits which are within the perimeter of PE525 and the two carres of PE4958 have been transferred, shall be for the sole benefit of KCC. Such transfer was completed pursuant to a transfer deed dated 27 July 2009 and evidenced by the CAMI in its exploitation certificate No. CAMI/CE/5621/2009 dated 27 November 2009.

- The DCP exploitation permits were transferred to KCC following completion of the merger with DCP. In addition, one carre of PE 7044 (i.e. new PE11601 being an extension of the Kananga deposit) shall be transferred by GCM to KCC once the holder of PE652 has released the carre to be transferred from its tailings area, or earlier if KCC has agreed to grant an easement to the holder of PE652. Such transfer was completed pursuant to a transfer deed dated 27 July 2009 and evidenced by CAMI in its exploitation certificate no. CAMI/CE/5622/2009 dated 27 November 2009.

- The perimeter of the merged KCC/DCP concession area will contain the Necessary Surfaces as defined in the Amended Joint Venture Agreement.

Pursuant to the Amended Joint Venture Agreement, the Necessary Surfaces will be sourced from PE8841 held by GCM and from one carré close to the T17 deposit. Easements have been granted to enable KCC to establish and maintain operating facilities for the KOV Open Pit waste removal conveyor belt system. KCC shall fund an independent contractor to determine whether the surfaces identified as potential Necessary Surfaces contain any mineral reserves. Provided no reserves are discovered, the relevant surfaces shall be converted into multiple exploitation permits (where required) and shall be leased to KCC Should any reserves be discovered in the identified surfaces, the reserves shall be transferred to KCC and shall count as Replacement Reserves (as defined below) under the terms of the Amended Joint Venture Agreement.

In addition, under the Amended Joint Venture Agreement, KCC was granted an option for a period of three years following the merger with DCP to increase the Necessary Surfaces by the five carrés (to be leased) contained in PE8841 if such extension is required for the project. Beyond this three-year period, KCC shall have a pre-emptive right on these five carrés in case GCM is willing to transfer or make any part of them available to third parties.

The rent for the Necessary Surfaces (including the five additional carrés if the option is exercised within the 3 year period) amounts to USD 600,000/year. However, KCC, as the merged entity, will remain liable for the payment of the rental tax (22%) which will be in addition to the royalties owed by KCC to GCM.

As part of the Amended Joint Venture Agreement, it has also been agreed that upon the winding up or liquidation of KCC, the mining rights and titles of KCC shall revert to GCM without further consideration.

Pursuant to the Amended Joint Venture Agreement, GCM and KCC have signed an agreement relating to the lease by GCM to KCC of the equipment and installations described in an annex to the Amended Joint Venture Agreement (the "Equipment and Installations"). The rent for the Equipment and Installations payable by KCC to GCM is USD 1,200,000/year to be deducted from the royalties owed by KCC to GCM. However, KCC will remain liable for the payment of the rental tax (22%) which will be in addition to these royalties.

KCC shall retrocede the Equipment and Installations free of charge to GCM upon lawful termination or final expiry of the Amended Joint Venture Agreement.

As part of the Amended Joint Venture Agreement, it has also been agreed that GCM grants and/or makes available to KCC, subject to payment of the reasonable maintenance costs, the following rights: (i) the right to use roads, railways, rail routes, waterways, etc; (ii) to avail itself of rights of way, easements, rights to water, etc. and (iii) all the supplementary rights that can facilitate access to or use of the lands involved and the facilities located thereon, which GCM enjoys outside the perimeter of the KCC project in so far as the same are necessary or desirable to carry out the project in the most cost effective manner.

1.4 Legal Tenure

Following on from the ratification of the Amended Joint Venture Agreement, KCC holds the permits listed in the table below.

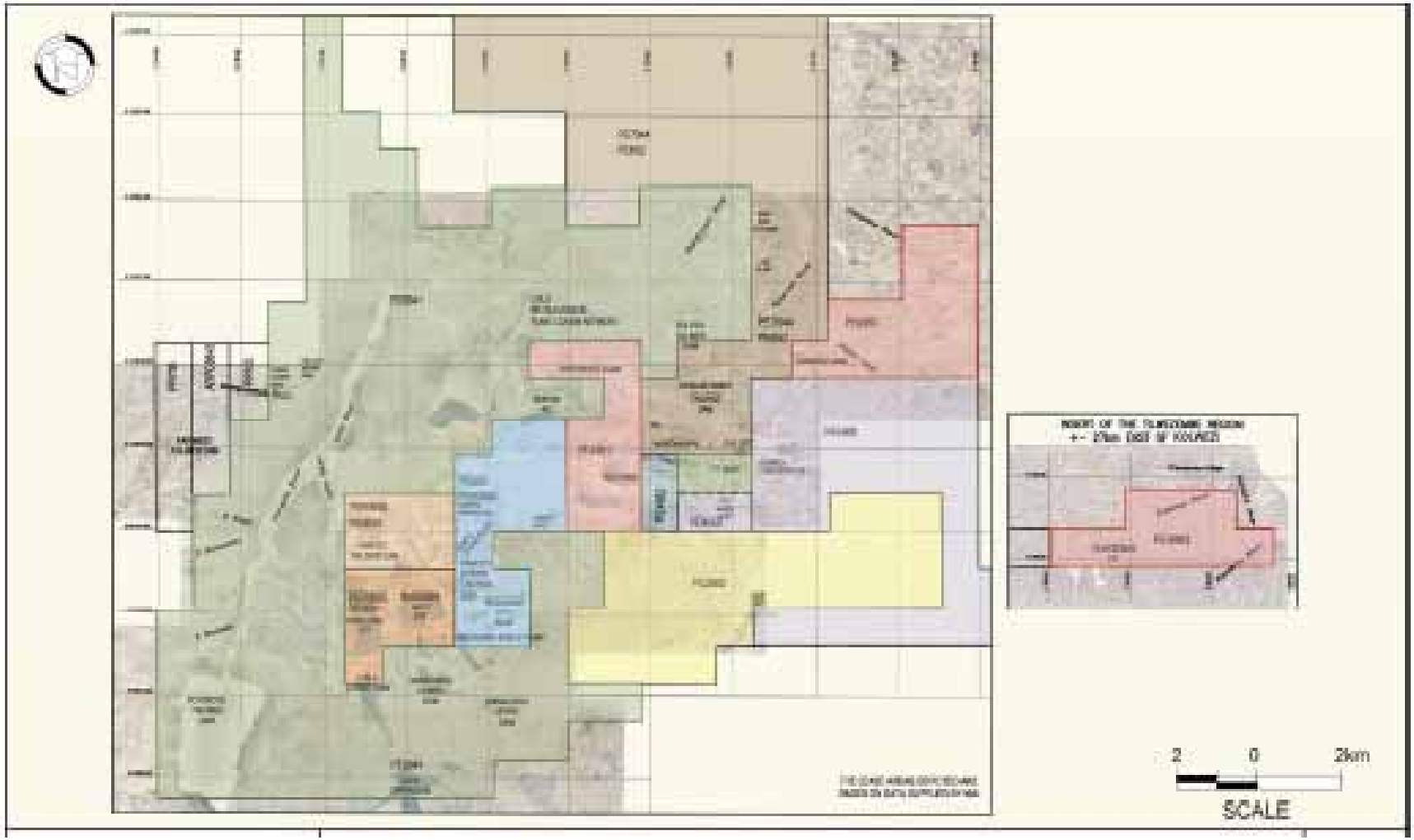
Exploitation permits under the Mining Code of the DRC are renewable in accordance with the terms of the Mining Code for periods of 15 years.

An exploitation permit grants to its holder the exclusive right to carry out exploration and exploitation works for the minerals for which it has been granted. This right covers the construction of necessary facilities for

mining exploration, the use of water and wood resources, and the free commercialisation of products for sale, in compliance with corresponding legislation.

Property	Exploitation Permit Number	Rights Granted	Location	Held By	Area of Title	Valid Until
Kamoto Undergound Mine and Mashamba East Open Pit	PE525	Cu, Co and associated minerals	10°43'S 25°24'E	KCC	13 blocks, 11,04km^2	03/04/2024 Renewable
T17 Open Pit	PE11602	Cu, Co, nickel and gold		KCC	2 blocks, 1,698km^2	03/04/2024 Renewable
Extension of Kananga	PE11601	Cu, Co, nickel and gold		KCC	1 block, 0,849km^2	07/05/2022 Renewable
KOV Open Pit	PE4961	Cu, Co and associated minerals + Use of Surface	10°42'S 25°25'E	KCC	10 blocks, 8,49km2	03/04/2024 Renewable
Tilwezembe Open Pit	PE4963	Cu, Co and associated minerals + Use of Surface	10°47'S 25°42'E	KCC	9 blocks, 7,64km2	03/04/2024 Renewable
Kananga Mine	PE4960	Cu, Co and associated minerals + Use of Surface	10°40'S 25°28'E	KCC	13 blocks, 11,04km2	03/04/2024 Renewable

The property boundaries of the exploitation permits of KCC are described in the figure below. Such figures also show the Necessary Surfaces.


2
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SCALE

The boundaries have been taken from the maps at the CAMI relating to the boundaries of the KCC exploitation permits. KML has not separately surveyed the area. There are certain limited areas outside land currently held by GCM where KCC will need to make application for licences to operate infrastructure and tailings.

Status of Material Assets

This MER covers the following operations, projects and associated infrastructure of KCC located in the Kolwezi District of the Katanga Province in the Democratic Republic of Congo ("DRC") which are collectively referred to herein as the "Material Assets" and which are tabulated below.

Property	Holder	Type	Status	Licence		Comments
				Expiry Date	Area	
KTO Mine Mashamba East Open Pit	KCC	Ug OP	Operating Development	3 April 2024	11,04 km^2	Mine Operational Development project, dewatering to commence in 2013
T17 Open Pit	KCC	OP	Operating	3 April 2024	1,698 km^2	Mine Operational
KOV Open Pit	KCC	OP	Operating	3 April 2024	8,49 km^2	Mine Operational
Tilwezembe Open Pit	KCC	OP	Dormant	3 April 2024	7,64 km^2	Operations ceased in November 2008 due to lower copper/cobalt prices
Kananga Mine	KCC	OP	Dormant	3 April 2024	11,04 km^2	Operations ceased due to pending relocation of rail line
Extension of Kananga	KCC	OP	Dormant	7 May 2022	0,849 km^2	Operations ceased due to pending relocation of rail line

OP = Open Pit

Ug = Underground

Summary Table of Mineral Processing Assets:

Property	Holder	Status
Kamoto Concentrator	KCC	Operating
Luilu Metallurgical Plant	KCC	Operating

Replacement Reserves

Pursuant to the Amended Joint Venture Agreement, the reserves to be replaced in exchange for the Dikuluwe and Mashamba West deposits surrendered to GCM pursuant to the release agreement (the "Released Deposits") amount to 3 992 185 tonnes of copper and 205 629 tonnes of cobalt.

No "pas de porte" shall be paid to GCM in relation to the transfer of the reserves to be transferred to KCC as compensation for the Released Deposits (the "Replacement Reserves").

Pursuant to the Amended Joint Venture Agreement, GCM and KCC are also required to jointly scope, implement and manage an exploration programme (the "Exploration Programme") with the object of identifying sufficient Replacement Reserves and transferring them to KCC by no later than 1 July 2015. The Exploration Programme can take place within the perimeters of: (i) the KCC Exploitation Permits (excluding the Kamoto, Mashamba East, Tilwezembe, Kananga, T17 and KOV Open Pit deposits and any extensions of these deposits), (ii) the Necessary Surfaces, or (iii) in other perimeters belonging to GCM.

The Exploration Programme is to be financed by way of a loan from KCC to GCM and refunded, without interest, by GCM by way of set-off against the royalties and dividends payable by KCC.

If any Replacement Reserves are identified by GCM as a result of the Exploration Programme or otherwise, they shall be evaluated and certified in accordance with the Australasian Code for Reporting of Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia, as amended.

Once GCM has satisfied KCC that it has good legal title to such Replacement Reserves and they are covered by valid exploitation permits, KCC shall enter into a transfer deed or a lease, pursuant to which the Replacement Reserves shall be transferred or leased (amodié) to KCC.

If GCM does not replace these Released Deposits by 1 July 2015 it must pay USD 285,000,000 as financial compensation. KFL, GEC and GCM agreed that the financial compensation would be due from 1 July 2015 and that interest would be changed if the financial compensation is not paid within the two months following 1 July 2015. During the first 12 months following the two month grace period the interest rate applicable to the unpaid financial compensation amount would be limited to the London Interbank Offering Rate (“Libor”) (6 month) as opposed to Libor (6 month) + 300 basis points which will become applicable as of the end of the 12 month period.

GCM accepts that KCC may withhold any future revenues owed to GCM (i.e. royalties and dividends, with the exception of the pas de porte) until the financial compensation is fully paid.

1.5 Resources Model

Geology

The mineralized zones are at the western end of the Katangan Copperbelt, one of the great metallogenic provinces of the world, and which contains some of the world’s richest copper, cobalt and uranium deposits.

These deposits are hosted mainly by metasedimentary rocks of the late proterozoic Katangan system, a 7 km thick succession of sediments with minor volcanics, volcanoclastics and intrusives. Geochronological data indicate an age of deposition of the Katangan sediments of about 880 million years and deformation during the Katangan orogeny at less than 650 million years. This deformation resulted in the NS-SE trending Lufilian Arc, which extends from Namibia on the west coast of Africa through to Zambia, lying to the south of the DRC. Within the DRC, the zone of deformation extends for more than 300 km from Kolwezi in the north-west to Lubumbashi in the south-east.

Stratigraphically, the rich copper and cobalt deposits found in Zambia and the DRC are localized in the Roan Supergroup (the “Roan”). The Roan occurs at the base of the Katanga succession, unconformably overlying the basement rock of Kibaran age (mid-proterozic). The Roan is separated from the overlying rocks of the Kundelungu and Nguba Supergroups by a conglomerate, the Grand Conglomerate. The Nguba (previously known as the Lower Kundelungu) is composed of sandstones and shales with a basal conglomerate, while the Kundelungu consists essentially of sediments and is separated from the Nguba by a conglomerate, the (French) ‘petit conglomerat’.

Within the Lufilian Arc are large-scale E-W to NW-SE trending folds with wavelengths extending for kilometres. The folds are faulted along the crests of the anticlines through which rocks of the Roan have been diapirically injected into the fault zones, squeezed up fault planes and over-thrust to lie above rocks of the younger Kundelungu. The over-thrust Roan lithologies occur as segments or “fragments” on surface. The

fragments are intact units that preserve the original geological succession within each. A fragment could be of hundreds of metres aligned across the fault plane.

In the Katangan copperbelt, mining for copper and cobalt occurs in these outcropping to sub-outcropping fragments.

Mineralisation

Primary mineralisation, in the form of sulphides, within the Lower Roan is associated with the D Strat and RSF for the OBI and the SDB and SDS for the OBS and is thought to be syn-sedimentary in origin. Typical primary copper sulphide minerals are bornite, chalcopyrite, chalcosite and occasional native copper while cobalt is in the form of carrolite. The mineralization occurs as disseminations or in association with hydrothermal carbonate alteration and silicification.

Supergene mineralization is generally associated with the levels of oxidation in the sub-surface sometimes deeper than 100m below surface. The most common secondary supergene minerals for copper and cobalt are malachite and heterogenite. Malachite is the main mineral mined within the confines of the current KOV Open Pit.

The RSC, a lithological unit stratigraphically intermediate between the Upper and Lower Ore body host rocks, contains relatively less copper mineralization. The RSC contains appreciable copper mineralization near the contacts with the overlying SDB formation and the underlying RSF formations. The middle portion of the RSC, considered to be “sterile” by GCM, normally contains relatively less copper mineralization and is sometimes not sampled. The mineral potential of the RSC is less well known than that of other formations.

The RSC has been observed to be well mineralized in supergene cobalt hydroxide, heterogenite, which occurs as vug infillings, especially near the surface.

The mineralization at Tilwezembe Mine is atypical being hosted by the Mwashya or R4 Formation. The mineralization generally occurs as infilling of fissures and open fractures associated with the brecciation. The typical mineralization consists mainly of copper minerals (chalcopyrite, malachite and pseudomalachite), cobalt minerals (heterogenite, carrolite and spherocobaltite) and manganese minerals (psilomelane and manganite).

Mineral Resources

The consolidated Mineral Resources of the various areas of KCC as on 31 December 2010 in summarised in the table below. The actual mined out areas as on 31 October 2010 were used in conjunction with the forecasted tonnes for the last two months of the year.

KCC: Consolidated Mineral Resources as at 31 December 2010

Classification	Project Area	Mt	%TCu	%TCo
Measured	KTO Mine	30.7	4.54	0.54
	Subtotal	30.7	4.54	0.54
Indicated	KTO Mine	35.7	4.69	0.6
	Mashamba East Open Pit	75.0	1.80	0.38
	T17 Open Pit	8.5	2.75	0.87
	KOV Open Pit	123.9	5.37	0.4
	Kananga Mine	4.1	1.61	0.79
	Tilwezembe Open Pit	9.5	1.89	0.6
	Subtotal	256.7	3.95	0.45
Total Measured and Indicated	KTO Mine	66.4	4.62	0.57
	Mashamba East Open Pit	75.0	1.80	0.38
	T17 Open Pit	8.5	2.75	0.87
	KOV Open Pit	123.9	5.37	0.4
	Kananga Mine	4.1	1.61	0.79
	Tilwezembe Open Pit	9.5	1.89	0.6
	TOTAL	287.4	4.02	0.46
Inferred	KTO Mine	10.6	5.11	0.59
	Mashamba East Open Pit	65.3	0.76	0.1
	T17 Open Pit	15.3	1.91	0.61
	KOV Open Pit	71.2	3.56	0.32
	Kananga Mine	4.0	2.00	0.98
	Tilwezembe Open Pit	13.8	1.75	0.60
	Total	180.2	2.32	0.32

1) Mineral Resources have been reported in accordance with the classification criteria of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2004 Edition (the "JORC Code").

2) Mineral Resources are inclusive of Ore Reserves.

3) Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.

1.6 Reserve Estimate

Ukwazi Group visited the Material Assets of KCC during October 2010 and received geological and mineralogical data to assess and optimise mining plans developed for life of mine ("LOM"). The active operations for KCC can be classified into underground operations, namely KTO mine and surface mining operations, namely T-17 Open Pit and KOV Open Pit.

The current plan for KTO is to ramp yearly production up to 2.2 million tonnes of sulphide ore, to coincide with the completion of the Phase 4 processing plant expansion. Dilutions and mining over breaks applied vary from 4% to 13% and mining extractions including geological losses from 90% to 50%, depending on the mining methodology used. The run-of-mine ("ROM") head grade remains relatively constant at an average of 3.9% Cu over the life of 37,8 million tonnes ROM.

Two underground mines are planned for a production ramp up from 2018 onwards to replace and / or supplement production from the open pit operations. Conceptual work has been completed on T-17 underground and Kamoto East underground projects. These projects are planned on a total of 13.7 and 20.5 million tonnes ROM respectively at diluted grades of 2.6% Cu and 4.4% Cu.

T-17 Open Pit is approaching depletion and surface mining will conclude within the current open pit economic boundaries during 2012. The production plan is to achieve a total of 1.5 million tonnes of ROM oxide ore during 2011 and 2012 at an average head grade of 2.7% Cu. The production scheduled up to 2012 is converted to probable mineral reserves.

The KOV Open Pit delivers a ROM head grade of 4.14% Cu for a total of 83.2 million tonnes of ROM ore up to 2030. Ore production from the KOV Open Pit is primarily oxide material at 78% on average. The mineral reserve is estimated at 55.7 million tonnes at 4.7% Cu, classified as probable mineral reserve. KOV Open Pit is the major operational source of copper based on the current LOM plan.

For Mashamba East open pit, a total ROM production of 12.8 million tonnes at 2.8% Cu is planned at a production rate of up to 2.0 million tonnes per year. The pit would produce only oxide ore and the Probable Mineral Reserve is estimated at 5.9 million tonnes at 3.0% Cu.

KCC currently has an operational plan up to 2030 to mine a total of 169 million tonnes of copper ore, at an average copper grade of 3.9% Cu. The reserve estimate is 97 million tonnes at an average grade of 4.2% Cu.

KCC: Consolidated Mineral Reserves as at 31 December 2010

Proved			Probable			Total		
Tonnes (*000)	% TCu	% TCo	Tonnes (*000)	% TCu	% TCo	Tonnes (*000)	% TCu	% TCo
14 589	3.47	0.51	82 450	4.33	0.46	97 039	4.20	0.47

1.7 Plant and Equipment

The Kamoto Concentrator (“KTC”) and the Luilu Refinery constitute the process plants of KCC with KTC being approximately 4km from Kolwezi and the Luilu Refinery being 6 km distance from KTC.

Kamoto Concentrator

The original Kamoto Concentrator consists of Kamoto 1 and 2 sections built in 1968 and 1972 respectively and DIMA 1 and 2 sections built in 1981 and 1982 respectively.

Kamoto 1 treated mixed ore and oxides. The circuit comprised the following unit processes:

- autogenous milling operating in closed circuit with hydro cyclones;
- sulphide flotation including roughing, cleaning and middlings regrind to produce a sulphide concentrate;
- sulphidisation of oxide minerals; and
- oxide flotation including roughing and cleaning to produce an oxide concentrate.

Kamoto 2 primarily treated sulphide ore from the KTO mine. The circuit comprised the following unit processes:

- autogenous milling operating in closed circuit with hydro cyclones; and
- sulphide flotation including roughing, cleaning and middlings regrind.

The DIMA 1 circuit primarily treated oxides and mixed oxide / sulphide ore feeds. The circuit comprised the following unit processes:

- primary autogenous milling and secondary ball milling operating in closed circuit with hydro cyclones;
- sulphide flotation including roughing, cleaning, re-cleaning and middlings re-grind to produce a sulphide concentrate;
- sulphidisation of oxide minerals; and
- oxide flotation including roughing and cleaning to produce an oxide concentrate.

The DIMA 2 circuit treated oxide ore. The circuit comprised the following unit processes:

- primary autogenous milling and secondary ball milling operating in closed circuit with hydro cyclones;
- sulphidisation of oxide minerals; and
- oxide flotation including roughing and cleaning to produce an oxide concentrate.

Luilu Refinery

Production at the Luilu Refinery, located approximately 6 km north of KTC, commenced in 1960. The process route employed was roast leach-electro-winning typical of other contemporary DRC and Zambian Copperbelt operations. The circuit comprised the following unit processes:

- sulphide and oxide concentrate receipt, dewatering and storage;
- sulphide concentrate roasting;
- sulphuric acid copper leach of roaster calcine and oxide concentrate (oxidising leach assisted by air injection);
- secondary leach using high acid-consuming (dolomitic) concentrates;
- counter-current decantation and clarification;
- leach tailings filtration and residual sulphide flotation;
- tailings neutralisation and disposal;
- selenium removal via up-flow reactor containing copper granules;
- copper electro-winning onto copper starter sheets (being converted to stainless steel blanks);
- de-copperising of cobalt bleed solution – two-stage electro-winning;
- cobalt bleed solution purification including the following steps;
- iron removal by controlled pH precipitation using milk of lime;
- copper removal by two-stage controlled pH precipitation using milk of lime;
- nickel removal by controlled pH precipitation with sodium hydrogen sulphide (“NaHS”) and cobalt chips;
- zinc removal by the addition of hydrogen sulphide (“H_2S”) and neutralisation with sodium carbonate solution;
- controlled pH precipitation of cobalt with milk of lime;

- cobalt re-leaching with spent electrolyte and sulphuric acid under controlled pH;
- cobalt electro-winning; and
- cobalt vacuum degassing and burnishing.

The Luilu Refinery was designed to process sulphide and oxide concentrates with an initial capacity of 80 ktpa copper cathode. During the 1970s, capacity was expanded to 175 ktpa copper cathode and 8 ktpa cobalt cathode. The grade of cathode copper produced in the first electro-winning stage never met London Metal Exchange Limited ("LME") Grade 'A' quality, while most of the cathode and copper sponge produced in the secondary electro-winning was not of commercial quality and was recycled to the Shituru smelter at Likasi. Cobalt recovery across the plant was <65%, with the majority of the cobalt losses occurring at nickel and zinc sulphide precipitation with some also at iron removal and cobalt precipitation.

The condition of the plant in 2004, when taken over, was extremely poor and almost totally run down. A progressive renewal programme was planned, to match the increasing throughput. Considerable progress has been made to-date in the phased rehabilitation exercise. Completion of Phase 1 was December 2007 and completion of Phase 2 December 2009. The new roaster was commissioned in late 2009.

Phase 3 for which SNC-Lavalin (South Africa) are undertaking the engineering and procurement services will essentially complete the rehabilitation of KTC and the Luilu Refinery. A process simulation model has been developed, which indicates that Phase 3 of KTC and Luilu Refinery will produce 150 ktpa of copper and 8 ktpa of cobalt. Completion of Phase 3 will be in July 2011

Further production increases above the capacity of 150 ktpa copper and 8 ktpa cobalt have been assessed by a scoping study completed in July 2010. The study compared alternatives for increasing copper output to 270 ktpa or 310 ktpa.

A front end engineering and early works project is currently in progress. The design output will be 270 ktpa or 310 ktpa of copper and 8000 ktpa of cobalt metal with the additional cobalt sold as cobalt hydroxide. The most significant construction works to realise the 310ktpa copper production capacity are:

- Conversion of the DIMA mills from an autogenous application to a semi-autogenous application;
- Additional milling and flotation facilities;
- Additional concentrate filtration facilities;
- Additional roasting facilities;
- A neutral leach circuit;
- A copper solvent extraction ("SX") plant;
- Conversion of the existing unused electro-refinery to electrowinning as base load copper production;
- Refurbishment and re-use of the existing copper electrowinning facility as variable top up capacity;
- Upgrading the cobalt purification facilities; and
- Cobalt hydroxide bagging facility.

It is currently anticipated that the conversion and construction works will be completed in 2013 which will allow for 250ktpa copper production in 2014. The refurbishment of the existing copper electrowinning facility will be completed in 2014 to allow for 310ktpa copper production in 2015.

1.8 Closure

A closure assessment was conducted on the mine infrastructure and footprint. The key findings from the closure assessment have been based on the interpretation of Google Earth images of the respective sites. Moreover, in those instances where the required information was not available, estimates were made based on experience. Unit rates for the purpose of the review were obtained from GAA existing data base and/or from demolition practitioners. Where required, these were adapted to reflect site-specific conditions.

The review of the existing closure costs as well as recommendations in this regard has been completed from a risk-averse perspective and mainly errs on the side of caution. This approach allows for the costs to be refined as appropriate information becomes available, as opposed to possible under-estimation and associated provision that could lead to liability shortfalls.

Due to the severely disturbed and possibly contaminated nature of the mining area, even small differences in battery limits could have a notable effect on the computed closure costs. Notwithstanding uncertainty in this regard, the indicative closure costs of USD 111million determined by GAA indicate that the 2008 cost determined by SRK appears to be appropriate and can be applied as the basis for reclamation and restoration related financial provision at this point in time.

More work is required to arrive at definitive closure costs, also giving attention to those aspects highlighted in this report.

1.9 Environmental, Health and Safety

This report presents the findings of an environmental and social audit conducted by GAA at KCC on 8th December 2010.

Results of the Audit: Permits

In regards to authorisations required, it was demonstrated during the audit that:

- KCC holds approved operating licenses for all its concessions (PE525, PE4960, PE4961, PE4963, PE11601 and PE11602) in accordance with Article 64 of the DRC Mining Code (Law No 007/2002 of 11th July, 2002).
- A draft Environmental Impact Study (“EIS”) and Environmental Management Plan (“EMP”) has been compiled for the KCC Project by SRK in March, 2010. KCC has submitted this document to the Department for the Protection of the Mining Environment (“DPEM”) in January 2011 for their approval, as per the DRC Mining Code and DRC Mining Regulations (Decree No 038/2003 of March 2003). The main body of the report includes a table summarises the extent to which KCC environmental and social management complies with Equator Principles and the International Finance Corporation (“IFC”) performance standards. This assessment is heavily based on the findings of a previous audit (Metago, 2009) which were then updated with information from EIS and EMP (SRK, 2010) and our findings in this audit.

Results of the Audit: Environmental Impacts

Environmental impacts which may represent a risk to KCC operation and to compliance with the Equator Principles include:

- Tailing and plant effluent discharges to the Luilu River which include, amongst other sources:
  - Process effluents and residues from the Luilu Refinery entering a ground depression to the south of the plant and overflowing into the Luilu River. This activity has been practiced since construction of the Luilu Refinery and represents a legacy issue. However, KCC has recognised the potential environmental risk it poses and is addressing the issue through an engineering study which has been completed by SNC-Lavalin and which is currently scheduled for implementation in 2011; and

- Uncontrolled release of minor quantities of tailings from the Kamoto Interim Tailings Dam ("KITD") through the penstocks and spillways into downstream redundant tailings facilities and eventually into the Luilu River, which represent a significant environmental risk to KCC by virtue of their high total dissolved solids ("TDS"), variable pH, high total suspended solids ("TSS") (> 500 mg/l) and non-compliant levels of copper ("Cu"). These releases were addressed in 2010 with an extension to the KITD facility and with further works scheduled to be completed on KITD in 2011 in advance of the LOM tailings facility being engineered and constructed in preparation for long term tailings management in 2012. .

- Discharge of KOV Open Pit water to the Musonoi River resulting in a relatively low risk of silt loading. and contamination with Cu, cobalt ("Co") and manganese ("Mn"). The KOV Open Pit discharges to the Musonoi River are monitored daily and to date have been >98% compliant with DRC discharge limits for TSS and the other referenced metals.

- Dust fall and vibration impacts to surrounding villages (particularly Luilu and Musonoi) from KCC blasting, Waste Rock Dumps ("WRD"), tailings storage facilities ("TSF"), haul roads and other activities. These impacts represent a nuisance factor, a potential health/safety risk, and potential source of community complaints and compensation claims. KCC has taken note of the issue and provided capital to monitor and address these concerns. It should be noted that dust fall can not exclusively be assigned to KCC operations due to the presence of artisan mining activities and historical WRD and tailings facilities from GCM operations.

- Radioactivity impacts associated with various ore storage areas, TSF, WRD and processing plants. The most significant risk to KCC is possibly via exposure of artisanal miners to radioactive waste rock which is stored separately from non-radioactive waste rock. However, the radioactive waste rock dumps adjacent to KOV Open Pit, are a consequence of historical mining activities by GCM and remain GCM's liability.

- The rehabilitation of steep-sloped WRD on which re-contouring is first required. This represents rehabilitation and closure cost liability to KCC.

- Historical sites of soil pollution within the KCC Concession, particularly those associated with copper and cobalt effluent releases from the Luilu Refinery and KTC. As previously stated, where this has occurred prior to 2004, the reclamation and rehabilitation remains the responsibility of GCM.

- The risk of generating acid rock drainage with future mining of deeper sulphide ores. Geochemical testing of geological and waste materials would assist in characterising and quantifying this risk.

The following observations were made in relation to overall management of KCC environmental issues:

- Following the drafting of the Environmental Management System ("EMS"), it requires dedicated human and financial resources in order to be effective.

Results of the Audit: Community Relations

The following observations were made in relation the management of KCC social issues:

- The organisational structure, staffing, budget and allocation of funds to corporate social investment projects are well managed. Approximately USD 8M was allocated to community development projects in 2010 with projects including: construction of community infrastructure (schools, water supplies roads, hospitals); health interventions (malaria and HIV control); and agricultural projects. The Community Development Manager anticipates a budget of approximately USD 10M for 2011.

- There is a good interface between KCC and communities directly affected by KCC operations

- A resettlement program was conducted in 2006 / 2007 to relocate (1) approximately 25 families from KCC owned ground within Kolwezi town; and (2) approximately 80 people from ground which was

allocated for the Far West Tailings Dam which they were occupying on a seasonal basis for farming activities. All resettlement was conducted in compliance with Equator Principles and involved local community leaders.

- Community issues and concerns appear to have been meticulously managed in 2010 through the communication and grievance procedures set up by the Community Development Department. The main grievances identified appear to be as a result of blasting and mine waste disposal at T17 Open Pit and KOV Open Pit, which affects the nearby Musonoi community.
- The draft EIS forms an acceptable basis for the social and environmental management of the mine in the future.
- Fully implemented, the EIS and EMP will guide the actions necessary to comply with world standards, including Equator Principles and IFC performance standards

In our opinion, implementation of the site EMP (once submitted and approved by the DPEM) and EMS will be fundamental in enabling KCC to meet Equator Principle requirements and to adequately address its' key environmental and social liabilities.

1.10 Economic Evaluation

An economic evaluation of KML's interest in KCC was done using the discounted cash flow method. Revenue, capital expenditure and operating costs were projected over the life of mine and discounted to give the expected value of KCC.

Revenue, capital and operating cost estimates

Production levels of copper and cobalt for KCC were based on the mine plans for the various operations and the expected recoveries from the processing plants. The price obtained for the production was derived from futures prices on the LME. Operating cost estimates were based on contractual, current and budgeted costs.

Capital expenditure is required for development of future mining operations, the completion of the existing phase 3 and the new phase 4 plans to enable annualised copper production of 310 ktpa, and associated support infrastructure. USD 25 million per annum is required as sustaining capital. The future capital requirements for KCC over the life of the mine are shown in the following table:

Capital Expenditure for KCC

USD million	2011	2012	2013	2014	2015	2016 - 2035	LOM Total
Capital expenditure	320	353	370	132	120	1 352	2 649

Valuation

The valuation was done at a discount rate of 10%, base date 1 January 2011. The net present value ("NPV") of KML's investment in KCC is USD 6 008 million.

1.11 Katanga MER Extraction Table

*Capacities refer to annualized capacity at year end - 31 December

* Overall plant recovery is 85% for Copper and 65% for Cobalt

		2008	2009	2010	2011	2012	2013	2014	2015
Finished metal production capacity	**Units**								
Copper	t	40 800	70 000	130 000	150 000	150 000	200 000	250 000	310 000
Cobalt	t	2 050	3 240	5 500	8 000	8 000	8 000	8 000	8 000
Cobalt Hydroxide	t						22 000	22 000	22 000
Finished metal actual / forecast production									
Copper	t	22 122	41 964	52 179	110 414	150 000	174 546	246 669	308 194
Cobalt	t	749	2 534	3 437	5 017	6 995	6 807	8 000	8 000
Cobalt Hydroxide	t						2 821	9 574	6 869
Copper contained in concentrate for sale	t	-	1 773	6 054	21 881	-	-	-	-
Cobalt contained concentrate for sale	t	1 776	-	-	-	-	-	-	-
Cash cost (excl. royalties, realisation charges, before by-product revenues)	US$m	276	286	291	388	483	485	529	637
By-products revenues	US$m	164	77	155	343	251	294	451	391
Royalties (as a % of net revenue)	%	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Depreciation & amortisation	US$m	364	287	200	310	371	323	214	179
Statutory Tax rate	%	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Capex									
Sustaining	US$m	119	18	56	60	87	86	95	83
Expansionary	US$m	319	100	165	260	266	285	38	38

Production Numbers - Mining

		2008	2009	2010	2011	2012	2013	2014	2015
KTO	Unit								
Mined ore	t	551 333	1 094 088	1 309 735	1 308 520	1 708 720	1 822 924	1 846 355	2 258 118
Cu grade	%	3.93	3.85	3.82	3.80	3.88	3.94	3.89	3.67
Co grade	%	0.43	0.49	0.56	0.49	0.57	0.58	0.57	0.57
KOV									
Mined ore	t	-	-	722 324	1 517 348	2 364 753	3 336 993	5 164 689	6 176 646
Cu grade	%	-	-	4.43	4.81	5.02	5.11	4.21	3.81
Co grade	%	-	-	0.30	0.38	0.39	0.35	0.22	0.15
T-17									
Mined ore	t	479 543	1 687 978	1 944 742	1 100 000	370 000	-	-	-
Cu grade	%	1.72	1.30	2.55	2.57	2.93	-	-	-
Co grade	%	0.89	0.85	0.95	0.46	0.44	-	-	-
Tilwezembe									
Mined ore	t	609 792	-	-	-	-	-	-	-
Cu grade	%	1.39	-	-	-	-	-	-	-
Co grade	%	1.17	-	-	-	-	-	-	-
Mashamba East									
Mined ore	t	-	-	-	-	-	-	-	994 510
Cu grade	%	-	-	-	-	-	-	-	4.14
Co grade	%	-	-	-	-	-	-	-	0.10

Production Numbers - KTC

		2008	2009	2010	2011	2012	2013	2014	2015
Sulphide circuit	Units								
Capacity *	t	840 000	1 680 000	2 520 000	2 520 000	2 520 000	2 520 000	2 520 000	2 520 000
Actual Milled KTO ore	t	562 833	1 099 902	1 324 782	1 308 520	1 708 720	1 822 924	1 846 355	2 258 118
Cu grade	%	3.80	3.70	3.73	3.80	3.88	3.94	3.89	3.67
Co grade	%	0.40	0.47	0.54	0.49	0.57	0.58	0.57	0.57
Sulphide Concentrate produced	t	48 909	92 477	113 678	113 122	134 175	145 767	145 892	170 383
Cu grade	%	40.80	40.70	39.56	40.00	42.00	42.00	42.00	42.00
Co grade	%	4.40	5.00	5.66	3.70	4.70	4.70	4.70	4.90
Oxide and Mixed Circuit									
Capacity *	t	840 000	1 440 000	3 000 000	5 160 000	5 160 000	5 160 000	7 680 000	7 680 000
Actual Milled T-17 ore	t	437 754	885 318	1 236 354	2 195 060	827 389	-	-	-
Cu grade	%	2.70	2.34	2.45	1.99	2.30	-	-	-
Co grade	%	0.70	0.76	0.95	0.70	0.70	-	-	-
Actual Milled KOV ore	t	-	-	364 455	1 561 348	2 364 753	3 336 993	5 164 689	6 176 646
Cu grade	%	-	-	4.43	4.81	5.02	5.11	4.21	3.81
Co grade	%	-	-	0.30	0.38	0.39	0.35	0.22	0.15
Actual Milled Mashamba East ore	t	-	-	-	-	-	-	-	994 510
Cu grade	%	-	-	-	-	-	-	-	4.14
Co grade	%	-	-	-	-	-	-	-	0.10
Actual Milled Total ore	t	437 754	885 318	1 600 809	3 756 408	3 192 142	3 336 993	5 164 689	7 171 156
Cu grade	%	2.72	2.34	2.78	3.16	4.32	5.11	4.21	3.86
Co grade	%	0.74	0.76	0.63	0.57	0.47	0.35	0.22	0.14
Oxide Concentrate produced	t	55 323	97 495	189 386	447 576	426 574	347 384	452 004	687 917
Cu grade	%	16.87	16.95	18.20	22.50	24.00	24.00	24.00	24.00
Co grade	%	3.30	3.76	2.83	2.40	1.70	1.70	1.70	0.70
Sulphide Concentrate produced	t					38 619	154 580	183 127	170 318
Cu grade	%					42.00	42.00	42.00	42.00
Co grade	%					2.30	2.10	1.60	1.10

Production Numbers – Kolwezi Concentrator ("KZC") (No longer an asset of KCC - returned to Gecamines)

		2008	2009	2010	2011	2012	2013	2014	2015
Capacity	**Unit**								
Actual Milled Tilwezembe ore	t	555 753	-	-	-	-	-	-	-
Cu grade	%	1.84	-	-	-	-	-	-	-
Co grade	%	0.83	-	-	-	-	-	-	-
Concentrate produced	t	36 573	-	-	-	-	-	-	-
Cu grade	%	12.31	-	-	-	-	-	-	-
Co grade	%	4.87	-	-	-	-	-	-	-

Number of employees (As of 31 December 2010)	
Mining	831
Metallurgical	1 335
Engineering	431
Administration	397
General Management and Finance	153
Total KCC Employees	**3 147**
Contractor	2 354
Project Contractor	959
Total Contractors	**3 313**
SA Office	22
Head Office	6
Total Personnel	**6 488**

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2.0 INTRODUCTION

2.1 Project Description and Location

2.1.1 Project Description

SRK compiled a feasibility study in 2008 on the material assets of the project. This study and other documentation as received during the site visits, were used as the basis for reporting the Mineral Resources in this MER. GAA reviewed the resource models of KOV Open Pit, KTO and T17 Open Pit as received from KCC, and the resource models of Kanaga Mine, Tilwezembe Open Pit and Mashamba East Open Pit as received from SRK. KCC is made up of several separate land packages for a total concession area of 15,235 hectares. The physical facilities include the Kamoto Concentrator and Luilu Refinery, related shops, warehouses, railroads and power lines.

2.1.2 Location

The geographical location for the site is set out below.

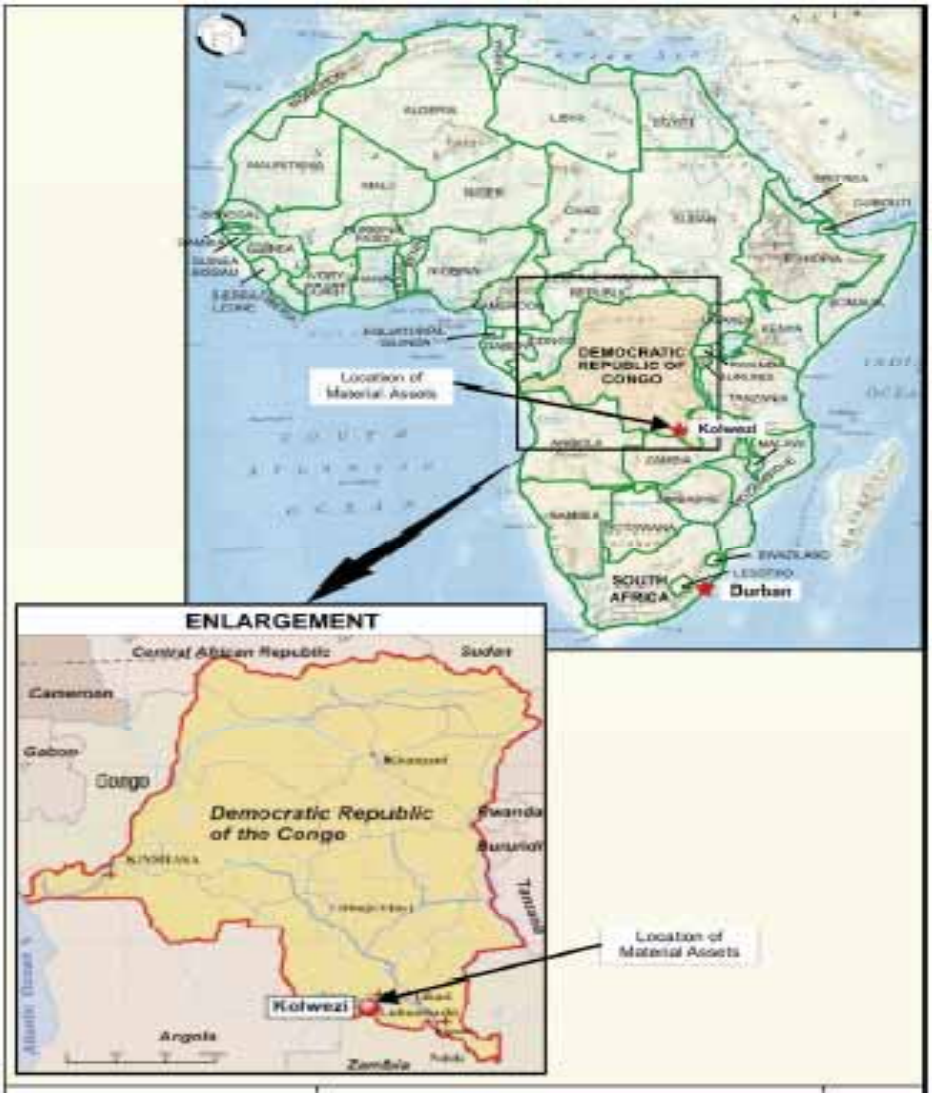

Figure 1: Geographic Location Map of the Material Assets

2.2 Ownership

KML, an entity listed on the Toronto Stock Exchange in Canada (TSX:KAT), holds a 75% stake in Kamoto Copper Company ("KCC") a joint venture with La Generale des Carrieres et des Mines ("GCM"), a State-owned mining company in the DRC.

2.2.1 History

Following the merger of KML and Nikanor PLC ("Nikanor") in January 2008, the Material Assets were held by KML through a 75% equity interest in KCC and a 75% equity interest in DRC Copper and Cobalt Project SARL ("DCP"). The balance of the equity interest in both KCC and DCP was owned by GCM.

In April 2007, prior to the merger of KML and Nikanor, a Commission of Enquiry was formed by the DRC government to review approximately sixty (60) mining agreements entered into by para-statal companies of the Congolese government. The KCC joint venture agreement and the DCP joint venture agreement were included in the mining agreements to be reviewed.

The Commission provided its conclusions in its report made public in November 2007.

KCC and DCP were notified on 11 February 2008 by the DRC Ministry of Mines of the objections and requirements regarding their partnerships with GCM further to the above-mentioned November 2007 report.

In July 2008, GCM and Katanga Finance Limited ("KFL" a 100% subsidiary of KML) entered into a memorandum of understanding under which certain amendments were agreed to be reflected in an amended joint venture agreement and the parties agreed to the merger of KCC and DCP.

In August 2008, the DRC Ministry of Mines issued terms of reference for the renegotiations and/or termination of the mining contracts entered into by KCC and DCP.

Following a number of meetings during the course of the last quarter of 2008 and the first quarter of 2009, GCM , KFL and Global Enterprises Corporate Ltd. ("GEC"), in the presence of KCC, DCP, SIMCO, Katanga Mining Holdings Limited, Katanga Mining Finance Limited and KML (BVI) Holdco Ltd. entered into on 25 July 2009 (which is also its date of entry into force) an agreement (the "Amended Joint Venture Agreement") which resulted in the termination of the original KCC joint venture agreement and DCP joint venture agreement.

The merger of KCC and DCP was ratified by Presidential Decree on 27 April 2010.

The consequences of the Amended Joint Venture Agreement on KCC mining rights and equipment installations are;

- The whole of PE525 (comprising 13 carres) and part of PE4958 (i.e. new PE11602 described below and comprising two carres containing the T17 deposit) was transferred to KCC. The Kamoto, Mashamba East and T17 deposits and any extensions of these deposits which are within the perimeter of PE525 and the two carres of PE4958 have been transferred, shall be for the sole benefit of KCC. Such transfer was completed pursuant to a transfer deed dated 27 July 2009 and evidenced by the CAMI in its exploitation certificate No. CAMI/CE/5621/2009 dated 27 November 2009.

- The DCP exploitation permits were transferred to KCC following completion of the merger with DCP. In addition, one carre of PE 7044 (i.e. new PE11601 being an extension of the Kananga deposit) shall be transferred by GCM to KCC once the holder of PE652 has released the carre to be transferred from its tailings area, or earlier if KCC has agreed to grant an easement to the holder of PE652. Such transfer was completed pursuant to a transfer deed dated 27 July 2009 and evidenced by CAMI in its exploitation certificate no. CAMI/CE/5622/2009 dated 27 November 2009.

- The perimeter of the merged KCC/DCP concession area will contain the Necessary Surfaces as defined in the Amended Joint Venture Agreement.

Pursuant to the Amended Joint Venture Agreement, the Necessary Surfaces will be sourced from PE8841 held by GCM and from one carré close to the T17 deposit. Easements have been granted to enable KCC to establish and maintain operating facilities for the KOV Open Pit waste removal conveyor belt system. KCC shall fund an independent contractor to determine whether the surfaces identified as potential Necessary Surfaces contain any mineral reserves. Provided no reserves are discovered, the relevant surfaces shall be converted into multiple exploitation permits (where required) and shall be leased to KCC Should any reserves be discovered in the identified surfaces, the reserves shall be transferred to KCC and shall count as Replacement Reserves (as defined below) under the terms of the Amended Joint Venture Agreement.

In addition, under the Amended Joint Venture Agreement, KCC was granted an option for a period of three years following the merger with DCP to increase the Necessary Surfaces by the five carrés (to be leased) contained in PE8841 if such extension is required for the project. Beyond this three-year period, KCC shall have a pre-emptive right on these five carrés in case GCM is willing to transfer or make any part of them available to third parties.

The rent for the Necessary Surfaces (including the five additional carrés if the option is exercised within the 3 year period) amounts to USD 600,000/year. However, KCC, as the merged entity, will remain liable for the payment of the rental tax (22%) which will be in addition to the royalties owed by KCC to GCM.

As part of the Amended Joint Venture Agreement, it has also been agreed that upon the winding up or liquidation of KCC, the mining rights and titles of KCC shall revert to GCM without further consideration.

Pursuant to the Amended Joint Venture Agreement, GCM and KCC have signed an agreement relating to the lease by GCM to KCC of the equipment and installations described in an annex to the Amended Joint Venture Agreement (the "Equipment and Installations"). The rent for the Equipment and Installations payable by KCC to GCM is USD 1,200,000/year to be deducted from the royalties owed by KCC to GCM. However, KCC will remain liable for the payment of the rental tax (22%) which will be in addition to these royalties.

KCC shall retrocede the Equipment and Installations free of charge to GCM upon lawful termination or final expiry of the Amended Joint Venture Agreement.

As part of the Amended Joint Venture Agreement, it has also been agreed that GCM grants and/or makes available to KCC, subject to payment of the reasonable maintenance costs, the following rights: (i) the right to use roads, railways, rail routes, waterways, etc; (ii) to avail itself of rights of way, easements, rights to water, etc. and (iii) all the supplementary rights that can facilitate access to or use of the lands involved and the facilities located thereon, which GCM enjoys outside the perimeter of the KCC project in so far as the same are necessary or desirable to carry out the project in the most cost effective manner.

2.2.2 Legal Tenure

Following on from the ratification of the Amended Joint Venture Agreement, KCC holds the permits listed in the table below.

Table 1: KCC Permits

Property	Exploitation Permit Number	Rights Granted	Location	Held By	Area of Title	Valid Until
Kamoto Undergound Mine and Mashamba East Open Pit	PE525	Cu, Co and associated minerals	10°43'S 25°24'E	KCC	13 blocks, 11,04km^2	03/04/2024 Renewable
T17 Open Pit	PE11602	Cu, Co, nickel and gold		KCC	2 blocks, 1,698km^2	03/04/2024 Renewable
Extension of Kananga	PE11601	Cu, Co, nickel and gold		KCC	1 block, 0,849km^2	07/05/2022 Renewable
KOV Open Pit	PE4961	Cu, Co and associated minerals + Use of Surface	10°42'S 25°25'E	KCC	10 blocks, 8,49km2	03/04/2024 Renewable
Tilwezembe Open Pit	PE4963	Cu, Co and associated minerals + Use of Surface	10°47'S 25°42'E	KCC	9 blocks, 7,64km2	03/04/2024 Renewable
Kananga Mine	PE4960	Cu, Co and associated minerals + Use of Surface	10°40'S 25°28'E	KCC	13 blocks, 11,04km2	03/04/2024 Renewable

Exploitation permits under the Mining Code of the DRC are renewable in accordance with the terms of the Mining Code for periods of 15 years.

An exploitation permit grants to its holder the exclusive right to carry out exploration and exploitation works for the minerals for which it has been granted. This right covers the construction of necessary facilities for mining exploration, the use of water and wood resources, and the free commercialisation of products for sale, in compliance with corresponding legislation.

The property boundaries of the exploitation permits of KCC are described in the figure below. Such figures also show the Necessary Surfaces.

The boundaries have been taken from the maps at the CAMI relating to the boundaries of the KCC exploitation permits. KML has not separately surveyed the area. There are certain limited areas outside land currently held by GCM where KCC will need to make application for licences to operate infrastructure and tailings.

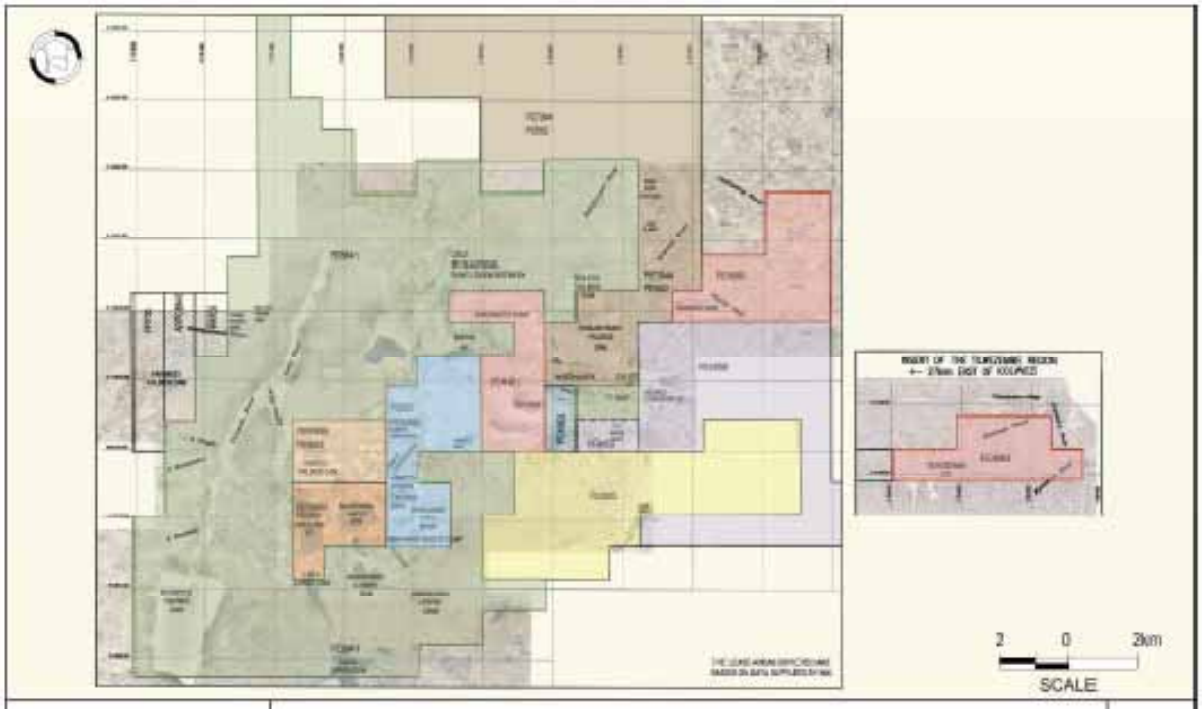

Figure 2: Concession Boundries

2.2.3 Status of Material Assets

This MER covers the following operations, projects and associated infrastructure of KCC located in the Kolwezi District of the Katanga Province in the Democratic Republic of Congo ("DRC") which are collectively referred to herein as the "Material Assets" and which are tabulated below.

Table 2: Mining Assets

Property	Holder	Type	Status	Licence		Comments
				Expiry Date	Area	
KTO Mine and Mashamba East Open Pit	KCC	Ug OP	Operating Development	3 April 2024	11,04 km^2	Mine Operational Development project, dewatering to commence in 2014
T17 Open Pit	KCC	OP	Operating	3 April 2024	1,698 km^2	Mine Operational
KOV Open Pit	KCC	OP	Operating	3 April 2024	8,49 km^2	Mine Operational
Tilwezembe Open Pit	KCC	OP	Dormant	3 April 2024	7,64 km^2	Operations ceased in November 2008 due to lower copper/cobalt prices
Kananga Mine	KCC	OP	Dormant	3 April 2024	11,04 km^2	Operations ceased due to pending relocation of rail line
Extension of Kananga	KCC	OP	Dormant	7 May 2022	0,849 km^2	As above

Table 3: Mineral Processing Assets

Property	Holder	Status
Kamoto Concentrator	KCC	Operating
Luilu Metallurgical Plant	KCC	Operating

2.2.4 Replacement Reserves

Pursuant to the Amended Joint Venture Agreement, the reserves to be replaced in exchange for the Dikuluwe and Mashamba West deposits surrendered to GCM pursuant to the release agreement (the "Released Deposits") amount to 3 992 185 tonnes of copper and 205 629 tonnes of cobalt.

No "pas de porte" shall be paid to GCM in relation to the transfer of the reserves to be transferred to KCC as compensation for the Released Deposits (the "Replacement Reserves").

Pursuant to the Amended Joint Venture Agreement, GCM and KCC are also required to jointly scope, implement and manage an exploration programme (the "Exploration Programme") with the object of identifying sufficient Replacement Reserves and transferring them to KCC by no later than 1 July 2015. The Exploration Programme can take place within the perimeters of: (i) the KCC Exploitation Permits (excluding the Kamoto, Mashamba East, Tilwezembe, Kananga, T17 and KOV Open Pit deposits and any extensions of these deposits), (ii) the Necessary Surfaces, or (iii) in other perimeters belonging to GCM.

The Exploration Programme is to be financed by way of a loan from KCC to GCM and refunded, without interest, by GCM by way of set-off against the royalties and dividends payable by KCC.

If any Replacement Reserves are identified by GCM as a result of the Exploration Programme or otherwise, they shall be evaluated and certified in accordance with the Australasian Code for Reporting of Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia, as amended.

Once GCM has satisfied KCC that it has good legal title to such Replacement Reserves and they are covered by valid exploitation permits, KCC shall enter into a transfer deed or a lease, pursuant to which the Replacement Reserves shall be transferred or leased (amodié) to KCC.

If GCM does not replace these Released Deposits by 1 July 2015 it must pay USD 285,000,000 as financial compensation. KFL, GEC and GCM agreed that the financial compensation would be due from 1 July 2015 and that interest would be changed if the financial compensation is not paid within the two months following 1 July 2015. During the first 12 months following the two month grace period the interest rate applicable to the unpaid financial compensation amount would be limited to Libor (6 month) as opposed to Libor (6 month) + 300 basis points which will become applicable as of the end of the 12 month period.

GCM accepts that KCC may withhold any future revenues owed to GCM (i.e. royalties and dividends, with the exception of the pas de porte) until the financial compensation is fully paid.

3.0 DESCRIPTION OF RESOURCES

3.1 Geological setting

3.1.1 General Geology

The mineralized zones are at the western end of the Katangan Copperbelt, one of the great metallogenic provinces of the world, and which contains some of the world's richest copper, cobalt and uranium deposits.

These deposits are hosted mainly by metasedimentary rocks of the late proterozoic Katangan system, a 7 km thick succession of sediments with minor volcanics, volcanoclastics and intrusives. Geochronological data indicate an age of deposition of the Katangan sediments of about 880 million years and deformation during the Katangan orogeny at less than 650 million years. This deformation resulted in the NS-SE trending Lufilian Arc, which extends from Namibia on the west coast of Africa through to Zambia, lying to the south of the DRC. Within the DRC, the zone of deformation extends for more than 300 km from Kolwezi in the north-west to Lubumbashi in the south-east.

Stratigraphically, the rich copper and cobalt deposits found in Zambia and the DRC are localized in the Roan Supergroup (the “Roan”). The Roan occurs at the base of the Katanga succession, unconformably overlying the basement rock of Kibaran age (mid-proterozic). The Roan is separated from the overlying rocks of the Kundelungu and Nguba Supergroups by a conglomerate, the Grand Conglomerate. The Nguba (previously known as the Lower Kundelungu) is composed of sandstones and shales with a basal conglomerate, while the Kundelungu consists essentially of sediments and is separated from the Nguba by a conglomerate, the (French) ‘petit conglomerat’.

Within the Lufilian Arc is large-scale E-W to NW-SE trending folds with wavelengths extending for kilometres. The folds are faulted along the crests of the anticlines through which rocks of the Roan have been diapirically injected into the fault zones, squeezed up fault planes and over-thrust to lie above rocks of the younger Kundelungu. The over-thrust Roan lithologies occur as segments or “fragments” on surface. The fragments are intact units that preserve the original geological succession within each. A fragment could be of hundreds of metres aligned across the fault plane.

In the Katangan copperbelt, mining for copper and cobalt occurs in these outcropping to sub-outcropping fragments.

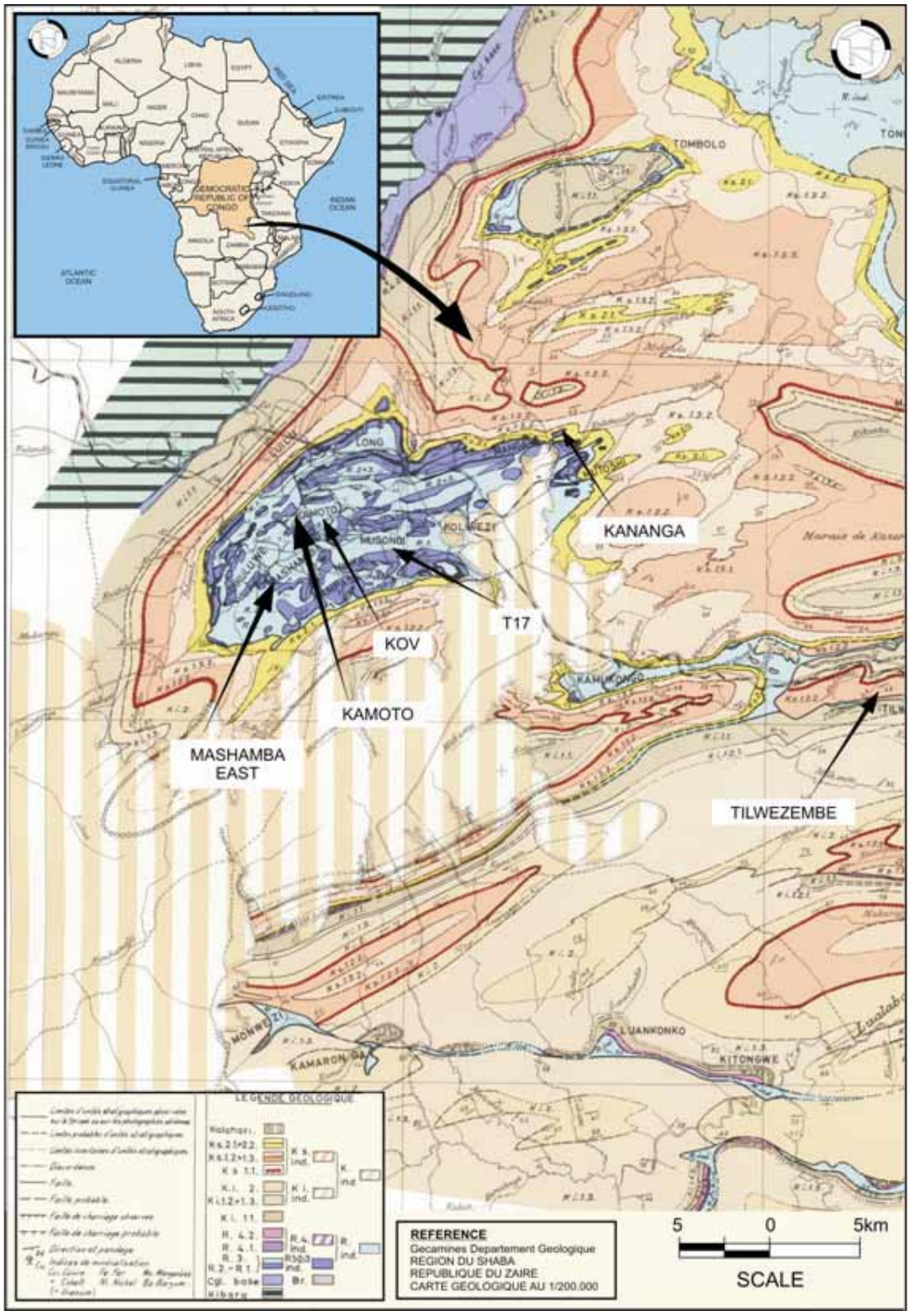

Figure 3: Regional Geology

3.1.1.1 General Stratigraphy

The generalized stratigraphy of the Katangan System is shown in Table 4. The Roan has been correlated across the Katangan Copperbelt into four main formations or groupings, R1 to R4. The divisions between each of the R series are often marked by an unconformity.

Table 4: General Stratigraphy of the Katangan System

KATANGA SYSTEM STRATIGRAPHY							
System	Series	Formation	Local Name			Description	Thickness (m)
	UPPER KUNDELUNGU					Sediments	30-50
	LOWER KUNDELUNGU					Sediments, sandstones and shales	200-500
KATANGA	ROAN	R4-1 AND 2	MWASHYA			Shales, siltstone, sandstone to dolomites	50-100
		R3-2	DIPETA			Shales and sandy schists	1000
		R3-1	RGS			Roches Greseuse Superieur	100-200
		R2-3	CMN			Calcaire a Minerais Noirs	130
		R2-2	SDS			Schistes Dolomitic Superieur	50-80
		R2-1	SDB	LOB	COMBINED OREBODY	Schistes Dolomitic Superieur	10-15
			RSC	LOB		Schistes De Base	12-25
			RSF	LOB		Roches Silicieuses Cellulaire	5
			D STRAT			Roches Silicieuses Feuilletees	3
			RAT Grises			Dolomie Stratifiee, argilitic dolomite	2-5
			RAT 2			Roches Argilleuses Talceuse	190
		R1	RAT 1			Roches Argilleuses Talceuse	40
			POUDINGUE			Unknown formation, transgression conglomerate	?

The main ore-body lithologies belong to the R2 formation, but R3 and R4 formations are also known to contain mineralization. Within each of the R series are sub-divisions identifying the different lithological units. Rocks belonging to the Roan Supergroup are described briefly below from the oldest to the youngest:

- Breche heterogene or heterogeneous breccia ("BH"): This breccia is composed of angular and sometimes well rounded fragments of all the various rock types of the Roan. The fragments vary in size from a few millimetres to several tens of millimetres in diameter, while the matrix is made up of finer-grained sandy particles of the same material as the fragments.

- Breche RAT or brecciated RAT ("B RAT"): A reddish-pink brecciated rock with calcite and silica veinlets and is at times well mineralized with specular haematite, occurring as veinlets.
- Roches Argilleuses Talceuse ("RAT"): The RAT is considered the boundary between the R2 and R1 units and consists of an upper RAT Grises ("R2") and a lower RAT Lilas ("R1"). Both are massive but sheared in places, silty or sandy, dolomitic rocks. Mineralization in the form of malachite and black oxides occurs associated with the upper RAT.
- Dolomie Stratifie or Stratified Dolomite ("D Strat"): This is a well-bedded to laminated, argillaceous dolomite, which forms the base of the traditional "Lower Ore Zone" in GCM' nomenclature. The mineralization consists of copper and cobalt oxides.
- Roches Siliceuses Feuilletées Foliated (Laminated) and Silicified Rocks ("RSF"): These are grey to light-brown, thinly bedded laminated and highly silicified dolomites. The unit is generally well mineralized with copper and cobalt oxides. Together with the D Strat, the RSF comprise the Ore Body Inferior ("OBI").
- Roches Silicieuses Cellulaires or Siliceous Rocks with Cavities ("RSC"): Vuggy and infilled massive to stromatolitic silicified dolomites. Copper mineralization is almost absent in these rocks, which were therefore regarded as barren. However, the infillings are enriched in wad (manganese oxide) and heterogenite (cobalt oxide), and RSC is the target of artisanal activity.
- Schistes De Base or Basal Schists ("SDB"): Reddish-brown to grey silty and nodular dolomite to siltstone. This unit is well mineralized with copper and cobalt in varying amounts and forms the Ore-Body Superior ("OBS").
- Shales Dolomitiques Superieurs or Upper Dolomitic Shales ("SDS"): Yellowish, cream-to-red, bedded laminated dolomitic siltstones and fine-grained sandstones. The rock is sparsely mineralized with malachite.
- Calcaire a Minerais Noirs or Calcareous Unit with Black Minerals ("CMN"): A slightly banded and laminated light-grey to grey, silicified dolomite mineralized with black oxide of iron, manganese and cobalt. The unit bears some similarities with the RSC.
- Dipeta ("R3"): Greyish to dark red or brown stratified shales and micaceous schist.
- Mwashya ("R4"): altered stratified greyish siliceous dolomitic rock with oolitic horizons and a few bands of light-yellow, talcose schist. Nodules of hematite often occur.

3.1.2 Local Geology and Geological Models

With the exception of Tilwezembe Open Pit all of the mineralized properties of KCC are localized within the Kolwezi Nappe, a Northeast striking synclinal basin with major and minor axes of approximately 20 km and 10 km respectively. Tilwezembe Open Pit is located about 12 km to the east of Kolwezi.

Within the Kolwezi Nappe, each of the project areas, T17 Open Pit, KTO Mine, KOV Open Pit, Kananga Mine and Mashamba East Open Pit contain fragments with intact successions of Series Des Mines lithologies, which host the copper and cobalt mineralization. The fragments are often structurally complex, being tightly folded and exhibiting variable strikes and dips both within individual rafts and between neighbouring rafts.

3.1.2.1 KTO Mine

The KTO operations extract mineralized copper ores from the Kamoto Principal fragment, which is differentiated from Kamoto East, mined in the KOV Open Pit, but contains the same lithologies. The morphology of the ore body is described as flat to gently dipping in the central parts, becoming steeper towards the flanks. Dips in the central parts vary between 0° and 20° increasing to about 45° towards the

flanks. Dips in the flank regions are between 45° to 85°. The ore body is subdivided into three regions as follows and shown in the geological model, Figure 4:

- The main central region, commonly referred to as the Principal;
- Etang South; and
- Etang North.

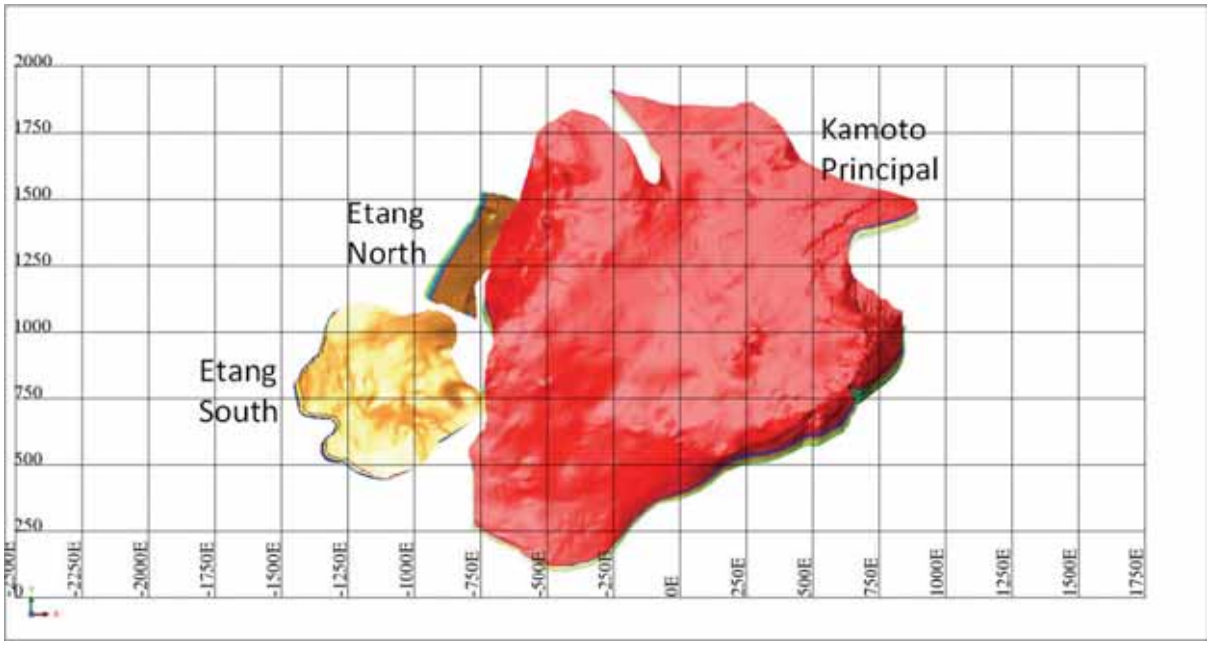

Figure 4: Plan view of KTO Mine Resource Model

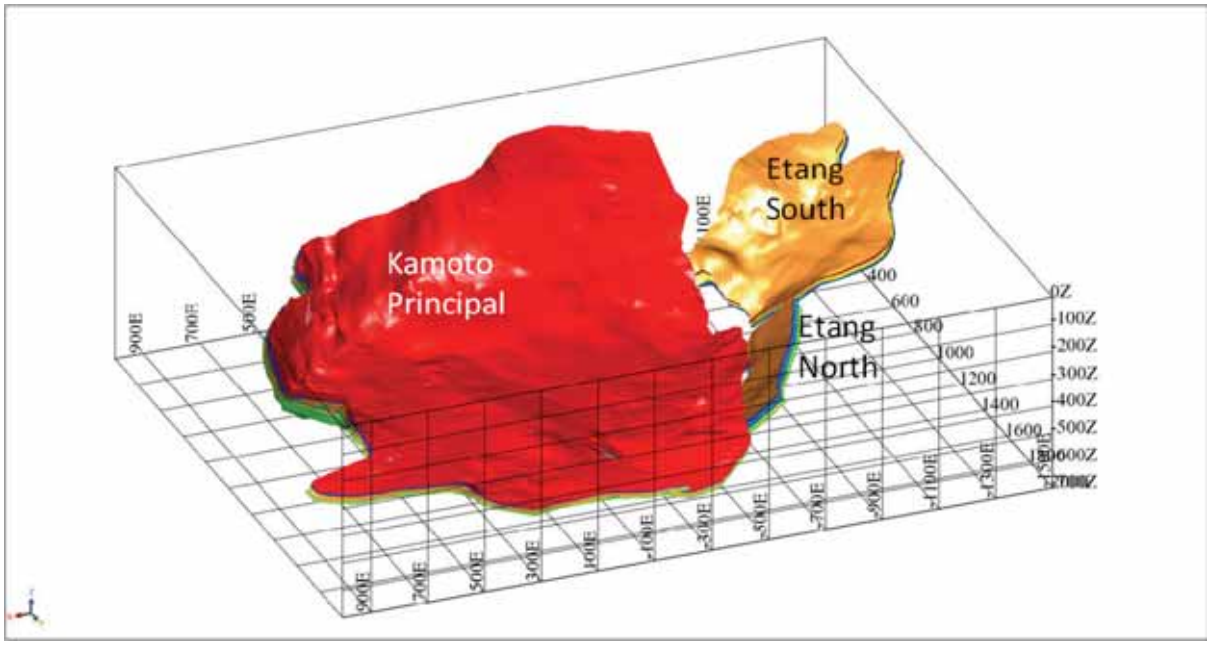

Figure 5: Oblique view of KTO Mine with Resource Model

3.1.2.2 T17 Open Pit

The T17 Open Pit can be described as dismembered structurally complex packages, which belong to the southern flank of a synclinal fold that extends 2.6 km and is overturned towards the north. Faulting is assumed to be the predominant process in the deformation and dismemberment of the deposit. The geological model is shown in Figure 6.

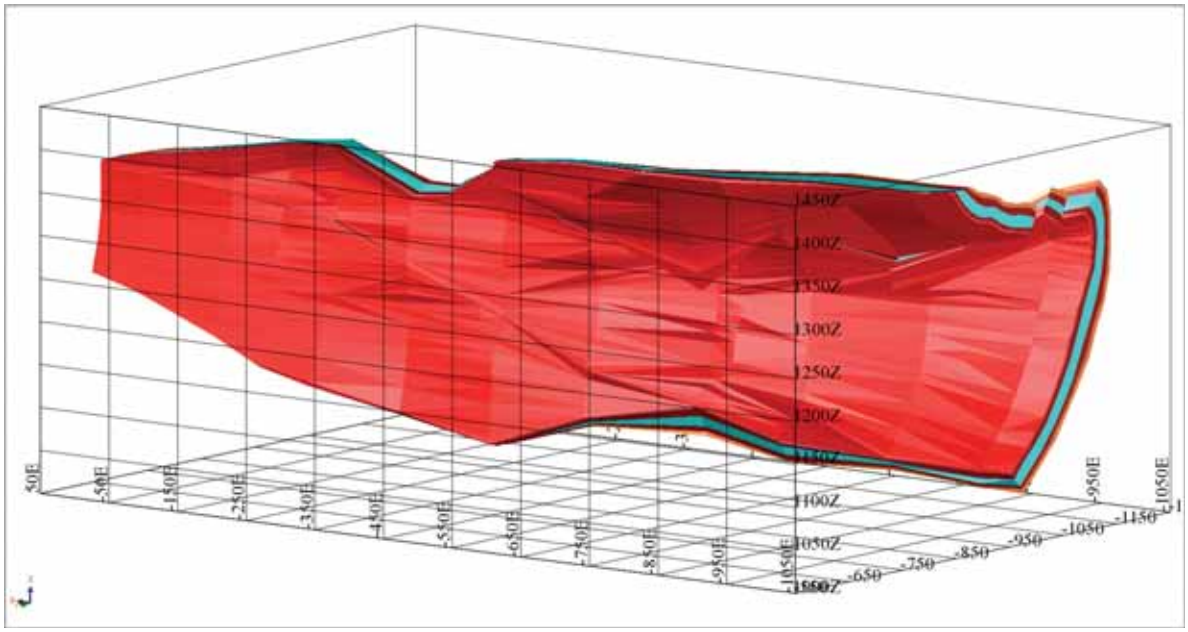

Figure 6: Oblique view of T17 Open Pit Resource Model

3.1.2.3 KOV Open Pit

There are three main individual “fragments” hosting mineralized Lower Roan lithologies within the KOV Open Pit area. These are Kamoto East, Oliveira and Virgule, from which the name KOV is derived. A fourth and smaller fragment, the FNSR, is a remnant of the Musonoi West fragment mined to the east of KOV Open Pit. The FNSR lies below and is sub-parallel to the Virgule orebody.

Other fragments within the area are OEUF and Variante. The OEUF consists mostly of hanging-wall lithologies occurring above the Virgule fragment, and the Variante lies below the Virgule and Oliveira fragments but outcrops towards the east in the Musonoi West area. Lower Roan lithologies have been identified in the Variante, but investigations indicate poor copper and cobalt mineralization within these lithologies. Within each of the mineralized fragments, the succession of lithologies is intact, although in the FNSR fragment the Lower Roan lithologies occur overturned.

The fragments that make up the KOV Open Pit orebody occur in an east-west-striking synclinal structure consisting of a steeply dipping southern limb and a shallow dipping northern limb, respectively named the Kamoto East and Virgule orebodies, while the Oliveira fragment is a shallower-dipping orebody in faulted contact with and below the Virgule orebody.

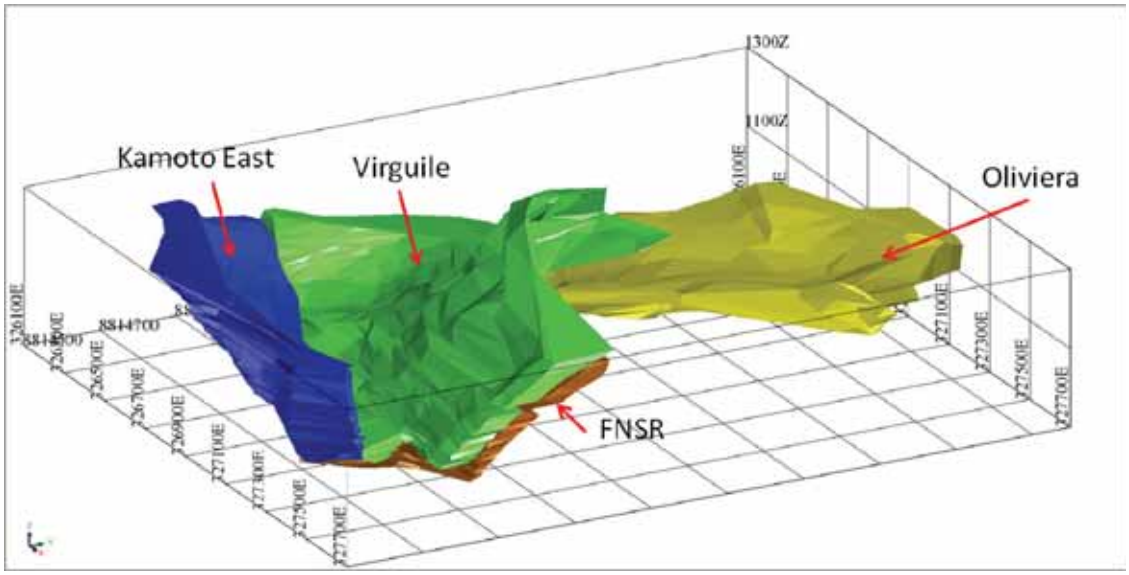

Figure 7: Oblique view of KOV Open Pit Resource Model

3.1.2.4 Mashamba East Open Pit

Mashamba East Open Pit operated from 1985 through 1988 and the open pit produced a total of 9,8 Mt of ore at an average grade of 4,96% copper and 0,35% cobalt. By 1998, due to the lack of funds and increasing costs, the open pit was allowed to flood.

Structurally, the lithologies of the Mashamba East orebody strike to the north-east and dip gently to the north in the west and wraps around to strike almost north-south and dip to the east in the eastern portion of the property. The orebody consist of four units, RSF, SDB, BOMZ and RSC.

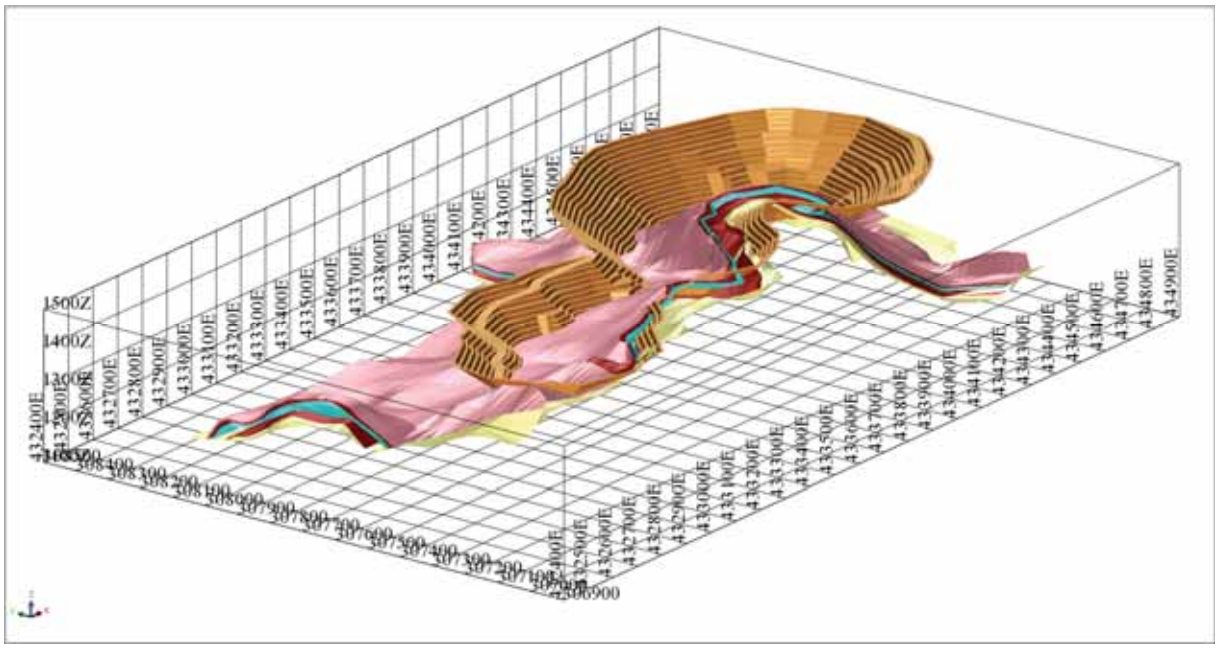

Figure 8: Oblique view of Mashamba East Resource Model and Planned Pit Layout

3.1.2.5 Kananga Mine

The Kananga orebody outcrops and forms a ridge with a N-NE strike. The ridge falls quite rapidly towards the south and has been cut to form part of the embankment for the main railway line, which runs parallel to the ridge and 10m to 20m away from it for most of the strike length of the orebody. GCM' interpretations indicate that Kananga is the northern limb of the Kananga-Dilala syncline, which plunges to the south. The geological model is shown in Figure 9.

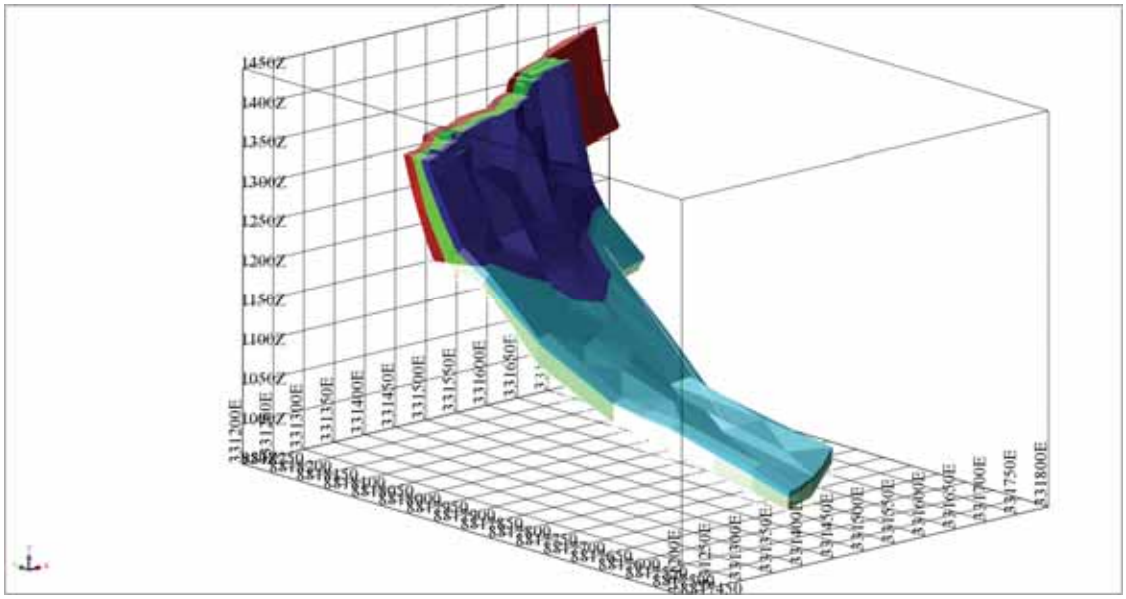

Figure 9: Oblique view of the Kananga Resource Model

3.1.2.6 Tilwezembe Open Pit

The mineralized zone of Tilwezembe is located in an NE-SW anticlinal structural lineament, which extends further to the east where there are known copper and cobalt deposits (Kisanfu, Myunga, Kalumbwe and Deziwa). Strongly brecciated siliceous dolomites and shales of the Mwashya Formation (or R4) dominate with interstitial bands of hematite and oolites. The strata strike almost east-west and dips at about 45° to the south. The geological model is shown in Figure 10.

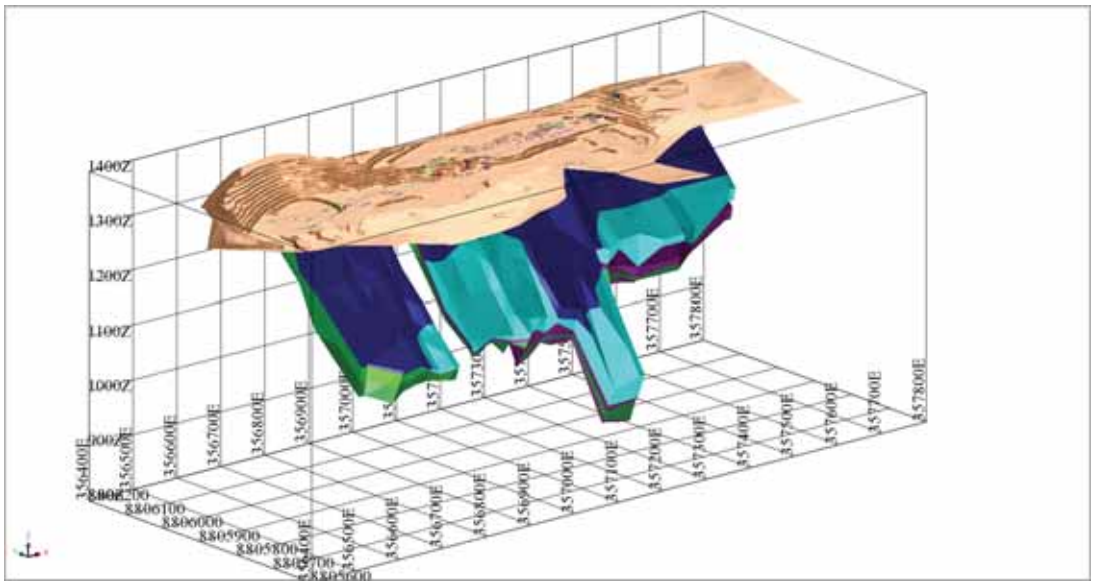

Figure 10: Oblique view of Tilwezembe Pit with Resource Model and Pit Layout

3.1.3 Deposit types

The deposits are stratiform with supergene enrichment within the upper surface layers.

Stratiform deposits are hydrothermal deposits but the ore minerals are always confined within specific strata and are distributed in a manner that resembles particles in a sedimentary rock. Because stratiform deposits so closely resemble sedimentary rocks, controversy surrounds their origin. In certain cases, such as the White Pine copper deposits of Michigan, the historic Kupferschiefer deposits of Germany and Poland, and the important copper deposits of Zambia and DRC, research has demonstrated that the origin is similar to that of Mississippi Valley Type ("MVT") deposits—that is, a hydrothermal solution moves through a porous aquifer at the base of a pile of sedimentary strata and, at certain places, deposits ore minerals in the overlying shales. The major difference between stratiform deposits and MVT deposits is that, in the case of stratiform deposits, the host rocks are generally shales (fine-grained, clastic sedimentary rocks) containing significant amounts of organic matter and fine-grained pyrite.

In ore deposit geology, supergene processes or enrichment occur relatively near the surface. Supergene processes include the predominance of meteoric water circulation with concomitant oxidation and chemical weathering. The descending meteoric waters oxidize the primary (hypogene) sulphide ore minerals and redistribute the metallic ore elements. Supergene enrichment occurs at the base of the oxidized portion of an ore deposit. Metals that have been leached from the oxidized ore are carried downward by percolating groundwater, and react with hypogene sulphides at the supergene-hypogene boundary. The reaction produces secondary sulphides with metal contents higher than those of the primary ore. This is particularly noted in copper ore deposits where the copper sulphide minerals chalcocite, covellite, digenite, and djurleite are deposited by the descending surface waters.

The copper deposits in the DRC are well known world class deposits

3.1.4 Mineralisation

Primary mineralization, in the form of sulphides, within the Lower Roan is associated with the D Strat and RSF for the OBI and the SDB and SDS for the OBS and is thought to be syn-sedimentary in origin. Typical primary copper sulphide minerals are bornite, chalcopyrite, chalcosite and occasional native copper while cobalt is in the form of carrolite. The mineralization occurs as disseminations or in association with hydrothermal carbonate alteration and silicification.

Supergene mineralization is generally associated with the levels of oxidation in the sub-surface sometimes deeper than 100m below surface. The most common secondary supergene minerals for copper and cobalt are malachite and heterogenite. Malachite is the main mineral mined within the confines of the current KOV Open Pit.

The RSC, a lithological unit stratigraphically intermediate between the upper and lower ore body host rocks, contains relatively less copper mineralization. The RSC contains appreciable copper mineralization near the contacts with the overlying SDB formation and the underlying RSF formations. The middle portion of the RSC, considered to be “sterile” by GCM, normally contains relatively less copper mineralization and is sometimes not sampled. The mineral potential of the RSC is less well known than that of other formations.

The RSC has been observed to be well mineralized in supergene cobalt hydroxide, heterogenite, which occurs as vug infillings, especially near the surface.

The mineralization at Tilwezembe Open Pit is atypical being hosted by the Mwashya or R4 Formation. The mineralization generally occurs as infilling of fissures and open fractures associated with the brecciation. The typical mineralization consists mainly of copper minerals (chalcopyrite, malachite and pseudomalachite), cobalt minerals (heterogenite, carrolite and spherocobaltite) and manganese minerals (psilomelane and manganite).

3.2 Mineral Resource Estimation Methodology

Mineral Resource models from which Mineral Resources are quoted in this report were generated by the following independent consultants:

- KTO Mine — CCIC
- T17 Open Pit — SRK
- KOV Open Pit — SRK
- Mashamba East Open Pit — SRK
- Kananga Mine — Snowden
- Tilwezembe Open Pit — Snowden

GAA has the overall responsibility for the sign-off on the Mineral Resources and Reserves and as part of that process has reviewed the methods and results adopted in the generation of the Mineral Resource models from the respective consultants. GAA’s review of the methods indicates similarities of approach between the various consultants, and the findings of the review are summarized below:

- Collate all the GCM geological information in the form of plans and sections and drill-hole logs in hard-copy format;
- Digitize the plans and sections for the generation of wireframe lithological models and capture drill-hole data;

- Define the envelopes outlining the limits of the zones of mineralization within each fragment in the project. Generally, this is a lithological cut-off (or a 0%TCu cut-off) defining the OBI as mineralization in the Rat Grises ("RATGR", an argillaceous dolomite), DTSRAT and RSF and the OBS mineralization within the SDB, the black ore mineral zone ("BOMZ") and to a lesser extent, the shalle dolomitic ("SD1a", the argillaceous part of the SDB). The RSC, which is intermediate between the OBI and OBS, is defined separately and split into a top, mid and bottom RSC. An exception was the work undertaken by Snowden on Kananga and Tilwezembe, where a 0,5%TCu cut-off was used;
- Undertake statistical and geostatistical analyses of the sample data within the defined envelopes of mineralization and derive variogram parameters;
- Estimate grades into the zones of mineralization using kriging techniques with attendant geostatistical parameters, search neighbourhood and input composite data; and
- Classify the Mineral Resources into the various categories defined by the JORC Code.

3.2.1 Exploration and Data

The project area contains mostly historical information from diamond drilling by the previous owners, GCM. Since 2009, KCC has conducted infill drilling in the three main production areas (KOV Open Pit, KTO and T17 Open Pit) and the results of these drillings campaigns are referenced below but are not yet included in the Mineral Resource or the Mineral Reserve statements although the resource models are being updated continually by personnel from KCC.

3.2.1.1 Drilling

KTO Mine

GCM carried out both extensive surface and underground drilling to delineate the KTO orebodies. A total of 83 surface boreholes have been identified – drilled between 1952 and 1991. Underground holes were generally drilled as fans of three or more holes from especially mined-out cubbies. A total of 569 holes have been identified, drilled between 1972 and 2002. The upper parts of the Etang orebody – above 400 levels – are covered only by surface drilling. Borehole surveys appear to have been carried at regular intervals for surface boreholes, but deviations are rarely more than a few degrees. Historically, underground collared boreholes have not been surveyed.

As part of an underground mineral resource verification exercise and to confirm development requirements and production schedules, KCC drilled 10,106 metres during 2009 and 2010 in the Kamoto Principal and Etang North orebodies. The drilled data confirmed the previously drilled data from by GCM which was used by CCIC and reported by SRK in the 2009 Technical Report.

T17 Open Pit

The T17 orebody has been the subject of two diamond drilling programs by GCM, with 3 287m drilled between 1938 and 1954, and 8 011m drilled from 1986 to January 1988. The holes were drilled generally to a nominal 100m by 100m grid, with certain areas being on 50m by 50m spacing.

KCC has drilled 20 holes in 2009 and 2010 within the current pit perimeter to confirm the continuation of the resource at depth. A total of 4 286m has been drilled, and the result from this drilling indicates that mineralization continues down-dip to a depth of more than 180m below the current pit design floor. Grades in these intersections have been encouraging, with the majority of intersect samples returning assay values of greater than 2% TCu. Further evaluation of this drilling data is currently being conducted to categorise this resource and allow for the conceptual mine plan to be developed to a level of confidence.

In addition to the drilling referenced above, KCC have also recently drilled a total of 10 holes to the east of the current T-17 Open Pit perimeter to confirm an extension of the ore body along strike. The analysis of cores from this drilling campaign indicated significant intersections as shown in Table 5. This is leading to the delineation of additional mineral resources and a subsequent increase in the life of the current pit.

Table 5: Summary of 2010 drill data for T-17

	Hole_id	Depth	OBS	RSC	OBI	%Cu	%Co
T17 EAST	T17001	113.4	34.9-53.5	91-108.6	53.5-91.0	3.25	0.31
	T17002	136.8	45.7-70.7	110.2-129.55	70.7-110.2	3.1	0.11
	T17003	94.8	16.1-32	71.3-93	32.0-71.3	2.09	0.25
	T17004	88.9	1.2-14.3	56.1-77.4	14.3-56.1	2.27	0.57
	T17005	116	34.3-50	50-116		3.08	0.31
	T17006	200.7	4.8-108	172.6-194.7	108-172.6	3.79	0.38
	T17007	125.3	No Int	No Int	No Int	-	-
	T17008	68.7	No Int	44.7-64.5	12-44.7	2.43	0.48
	T17009	89.5	3-32.6	32.6-71.2	71.2-78.5	2.55	0.29
	T17010	151.7	23.1-38.1	38.1-56.6	56.6-83.5	3.2	0.54

KOV Open Pit

The drill-hole logs indicate that exploration drilling commenced in the early 1940s on the Kamoto East ore body, and initial holes were prefixed as KTO. Although the target was the Kamoto East ore body, a substantial number of KTO holes were later drilled into the present-day KOV Open Pit.

In the 1980s, another drilling campaign was aimed at defining the KOV Open Pit mineralized zones, and this campaign continued into the early 1990s. The drilling was carried out along section lines spaced about 100m apart. Where feasible, drill holes were spaced about 100m along these section lines. The holes were prefixed KOV Open Pit.

The KOV Open Pit drill-hole database contains a total of 214 drill-holes spaced on average about 100 m. There are 100 intersections of the Virgule fragment, 75 for the Oliveira, 33 for Kamoto East and 19 for the FNSR. The demarcation between Virgule and Kamoto East is based on a boundary string file obtained from the GCM sections. However, for the modelling and grade estimation, certain drill holes overlap into the Virgule and Kamoto East and are therefore counted twice. Similarly, there are holes intersecting Virgule that also intersect FNSR and these are also counted twice.

There is adequate drill-hole coverage for the Virgule and Oliveira while the FNSR and Kamoto East intersections are limited (excluding recent drilling in Kamoto East reported below). The extent of the FNSR is limited as it is a remnant of the fragment mined in the Musonoi Pit, to the east of the KOV Open Pit, and the data distribution is therefore relatively adequate. The data distribution compared to the extent and volume of the Kamoto East fragment is inadequate, especially considering that the bulk of the data are well above the current pit bottom and there are limited drilling intersections in this steeply dipping limb.

Most of the historical drill holes within the Kamoto East and the KOV Open Pit areas were drilled vertically, with only a few being inclined. Kamoto East drilling was problematic due to the steepness in the dip of the strata. As a result, the majority of the holes intersect the near surface expression of the Kamoto East ore body, and only the inclined holes provide intersections at depth.

In general, the majority of the historical drill hole intersections in Kamoto East were within the areas that have been subsequently mined out, and there are very few ore-body intersections below the current pit bottom.

During 2010, a total of 10 holes (3461 metres) were drilled in the Kamoto East orebody by KCC. The majority of these holes intercepted the ore body either at or below the originally GCM drilled areas which were reported by SRK in the 2009 Technical Report and the data from this drilling campaign is within +/- 5% of the GCM resource model with regards to location and grade.

Table 6: Summary of 2010 drill data for Kamoto East

	Hole_id	Depth	OBS	RSC	OBI	%Cu	%Co
KAMOTO EAST	KOV0601	319.9	208.4-225.80	225.8-243.60	243.6-247.6	4.49	0.32
	KOV0602	250.5	N. Int.	N. Int.	N. Int.	-	-
	KOV0603	317.1	221.9-236.8	236.8-252.8	252.8-263.1	6.61	0.31
	KOV0604	325	216.13-236.48	236.48-252	252-274.14	4.22	0.22
	KOV0617	430.9	353-429.1	No Int.	No Int.	2.29	1.77
	KOV0618	442.8	394.2-422	422-440.25	440.25-441.8	5.23	0.78
	KOV0619	500	413.6-455	455-472.5	472.5-478.1	3.87	0.71
	KOV0620	241	No Int.	No Int.	No Int.	-	-
	KOV0621	402.3	No Int.	No Int.	No Int.	-	-
	KOV0622	231.9	389.9-419.4	419.4-431.9	N/Int	4.42	0.32
		3461.4			AVERAGE	4.47	0.63

KCC have recently drilled 11 holes (1 577m) in the Virgule orebody (Cut1a and Cut 2 of the scheduled mine plan) on the north west section of KOV Open Pit which confirmed location and grade of the resource model which was based on GCM data. Following this drilling, the mine plan was implemented and to date there has been good reconciliation between grade control assays and the resource model.

Table 7: Summary of 2010 drill data for Virgule

	Hole_id	Depth	OBS	RSC	OBI	%Cu	%Co
Virgule	KOV0605	140	92.8-101.2	101.2-117.85	117.85-135.1	5.17	0.22
	KOV0606	312.6	No Int.	No Int.	No Int.	-	-
	KOV0607	65	No Int.	No Int.	No Int.	-	-
	KOV0608	100.5	Leached	Leached	55.1-82.4	1.45	0.07
	KOV0609	99	leached	Leached	80.9-91.4	3.55	0.06
	KOV0610	80.7	leached	Leached	55.2-71	3.91	0.23
	KOV0611	122.5	leached	82.4-101.9	101.9-119.8	3.42	0.34
	KOV0612	160.5	106.5-125.8	125.8-144.8	144.8-158.7	5.97	0.14
	KOV0614	90.2	34.6-40.1	40.1-58.9	58.9-84.9	2.62	0.07
	KOV0615	100.5	Leached	46.8-64.9	76.5-100.2	5.86	0.12
	KOV0616	306	273.3-248.4	248.4-264.6	264.6-281.7	3.38	0.48
		1577.5			AVERAGE	3.727	0.161

Mashamba East Open Pit

For the Mashamba East Open Pit, drilling was undertaken from surface on a 100m by 100m spaced grid on a local co-ordinate system parallel to the strike of the mineralized zone. A total of 122 holes were drilled, comprising 20,466.4m drilled, with 1,788m intersecting copper mineralization of more than 1% TCu.

Kananga Mine

The historical drilling at Kananga was limited to about eight holes drilled by GCM. Details of the drilling, sample collection and sample analyses for the holes are not available.

Currently there are 52 holes drilled in Kananga captured in the database.

Tilwezembe Open Pit

The historical drilling was undertaken by GCM, and the information was the basis for the first pass mineral resource estimates for Tilwezembe Open Pit undertaken by SRK. The drilling information included drill holes on a 25m spacing within the operational Tilwezembe Open Pit and 100m by 50m on Tilwezembe East. A total of 157 holes have been drilled at Tilwezembe.

3.2.1.2 Sampling Method and Approach

Historical Sampling

Details of the historical sampling undertaken within each of the project areas are scant and based on personal communications with the respective consultant in each of the project areas. Inferences have been drawn from the observations from the sample database.

Cores from the ore body intersections were sampled for chemical analysis. The lengths of core sampled varied, and it is understood that this was a consequence of the sample recovered within each run. In the GCM logging sheet, there is a column for percentage recovery where values ranging from 1% to 100% are entered to describe the amount of core recovered in the sample length. Core recoveries are recorded only for cores that were sampled.

The lithologies sampled were the upper ore-body host rocks (lower SDS and SDB) and the lower ore-body rocks (RSF, DSTRAT and the RATGR) and portions of the RSC deemed to be mineralized. SRK understands that the visibility of copper mineralization in the core was used as the criterion for sampling the core. Core lengths deemed to be barren of copper were not sampled, and an entry was made in the sample log for that interval with the comment “steriles” or barren. It is possible, in SRK’s view, that the unsampled cores could contain finely disseminated copper mineralization not visible to the naked eye. There is a further possibility, especially in the RSC, that the “sterile” zones contain cobalt mineralization. In drill holes KOV 426 and KOV 427, the entire RSC is mineralized and returned good copper mineralization (2-3%) within the mid-RSC. In drill hole KOV 428, the mid-portion of the RSC was sampled. Partial or selective sampling, although common in the RSC, was also evident in the other Roan lithologies.

The assay database describes the sample in terms of the length, depths (from and to) of intersection and the amount of core recovered in that sample length. The sample database contains assay data for the following:

- %TCu: the percentage total copper content of the sample;
- %CuO: the percentage of the copper present as oxide. In the modelling, this is reported as %ASCu. Fewer than half of the samples were analyzed for %ASCu;
- %Cu mal: the percentage of the copper as malachite. Only a few samples contain values on this column;
- %TCo: the percentage total cobalt content of the sample; and
- %CaO soluble: the relative proportion of soluble calcium oxide in the sample. Less than 30% of the total database was assayed for calcium oxide.

Current Sampling

Sampled zones are selected based on the visual observation of the lithological contacts. The geologist also marks on the core the direction along which the core should be split, after considering the attitude of the bedding or foliation relative to the core axes. The drill lengths and the recoveries are recorded in the sampling notebooks.

Sampling is carried out at a maximum of one metre drill length intervals and different stratigraphic units are sampled separately. The core samples are sawed into two halves. One half is broken up and bagged for assay while the other half is stored for future reference.

Core bags for a particular batch are pre-labelled and arranged in order from the first to the last sample. A tag with an identification or sample number is added to the bag containing the sample before the bag mouth is tied.

Split core sampling is done from the drill core. Prior to taking samples, the geologist examines the core and marks off the intervals to be sampled by drawing a line along the core with a marker pen. When the intervals have been selected, the core is split in half using a diamond saw or core splitter. Once the core is split; individual sample lengths are selected taking care to note stratigraphical and lithological boundaries. The whole width of mineralization and at least one metre of apparently barren or low grade hanging wall and foot wall material are covered.

The data is recorded as preliminary in the log sheets and is then transferred into the geological database ("GDMS"). logged in Lakefield's sample-tracking system and stored on a shelf. The splits and resubmitted pulps are currently stored at SGS Lakefield and the check sample pulps at Set Point.

The analytical method used for the determination of total copper and total cobalt was X-ray fractionation. Acid-soluble copper and cobalt were determined by acid digestion (sulphuric acid) and analysis of the solution by AAS.

The methods are described as:

- For analysis of copper oxides each sample was weighed and mixed with an aliquot of dilute sulphuric acid enriched with sulphur dioxide. This mixture was agitated at room temperature for a set period and the sample residue filtered out of the solution. The solution was made up to volume and analyzed for copper and cobalt by AAS. This yielded acid-soluble results.
- For analysis of copper sulphides the residue of the copper oxide preparation was placed in a beaker and mixed with multiple acids, with the residue being digested in the acid mixture. The solution was made up to volume and analyzed for copper and cobalt by AAS. This yielded an assay of acid-insoluble copper("AICu") and acid-insoluble cobalt ("AICo") present as sulphides.

3.2.1.3 Data quality and quantity

Historically, the core recoveries are in general low throughout the various project areas. This is mainly because of the fractured nature of the ore, as well as the drilling techniques used.

Table 8: Historical Core Recoveries per Area

Area	Average Core Recovery (%)
Kamoto	65
T17	63
KOV	42
Mashamba East	71
Tilwezembe	80
Kananga	86

The bulk of the data within the project areas is historical, with the exception of the recent drilling data reported above which has validated the G|CM data. .

It is clear that modern drilling techniques improve core recovery.

The recent drilling campaigns in T17 and KOV Open Pits and KTO provide confirmation of this fact with the average core recovered in T17 Open Pit increasing to 82%, in KOV Open Pit increasing to 79% and in KTO to 91%. This is clearly an indication that current drilling techniques are much more focused towards sample recovery.

Using the historical low core recoveries in a resource model, there are two options to account for core loss:

- Adjustment of the assay grades to account for core loss and regard the adjusted data as representative; and
- Assume the assay grades of the recovered core represent the sample length, but account for the core loss in the classification on the premise of quality of data used in the estimation.

Adjustment of grade is considered preferable for recently acquired drill-hole information. As the bulk of the drilling information is historical for the project areas, SRK has considered the option of accounting for core loss in the classification. GAA agrees with this assessment.

3.2.1.4 Sampling Preparation and Analyses

Historical Sample Preparation and Analyses

All historical sampling, sample preparation, analysis and security were undertaken by GCM over more than 50 years. As can be expected, it is difficult to comment on the quality of such work.

The historical core samples were cut along the longitudinal axis with one half of the core sent for laboratory analysis and the remaining half retained in the boxes. There was no systematic approach to sample lengths as indicated by the variations in the sample lengths in the database. The minimum sample taken was 0.5m and the maximum sample was 2.5m. The sample lengths were also a consequence of the sample recovered within the run.

The historical core samples were delivered to the laboratory for further sample preparation and analysis which was undertaken in-house by GCM.

Recent Sample Preparation and Analyses

All the recent drilling for the feasibility study was done according to JORC standards.

The samples from Kananga and Tilwezembe were sent to two laboratories, Alfred H. Knight (Alfred Knight) in Kitwe and SGS in Ndola, for preparation and analysis. Sample preparation consisted of the following methodology:

- Drying of sample;
- Primary jaw and roll crushing of sample;
- Splitting a sub sample of 250 g using a riffle splitter; and
- Pulverizing of the sub-sample to 75 micrometres and homogenizing.

The prepared samples were analyzed for the following variables, namely; %TCu, %TCo, %Mn, %ASCu and %ASCo.

Both Alfred Knight and SGS determined %TCu, %TCo, %Mn assays by multi-acid digestion (using hydrofluoric, nitric and perchloric acids) followed by dissolution in hydrochloric acid and AAS.

For %ASCu and %ASCo, both laboratories used cold leaching with 5% sulphuric acid. However, Alfred Knight saturated with sulphur dioxide while SGS saturated with potassium sulphite before finishing with AAS. The laboratories may also have used different temperatures and digestion times.

Current Sample Preparation and Analyses

All the current sampling is done by KCC personnel. KCC carries out the sample preparation at Luilu Laboratory (accreditation and certification of the Laboratory to ISO standards is planned.)

Each of the half core samples are crushed to ± 20 mm and then again crushed to ± 5 mm. The crushed sample is split where necessary to produce a portion about 250 g. The split is then pulverized to 50µ, bagged and labelled. It is then submitted to the Laboratory for its respective analysis.

The analytical method used for the determination of total copper, total cobalt and copper oxide is atomic absorption spectrometry ("AAS").

Acid soluble copper and cobalt is determined by acid digestion in a blend of nitric acid and hydrochloric acid. Analysis of the solution is by AAS.

For total copper and total cobalt, each sample is weighed and mixed with an aliquot of blended nitric acid and hydrochloric acid in a volumetric flask. The sample residue is filtered out of solution, made up to volume and analysed for copper and cobalt by AAS.

For copper oxide, each sample is weighed and mixed in a blend of ethanol, hydrated tin chloride and hydrofluoric acid. This mixture is agitated at the room temperature for a set period and the sample residue filtered out of the solution. The solution is made up to volume and analysed for copper oxide by AAS.

3.2.2 Data Verification

Data validation, which is a routine exercise for KCC, involves checking of hardcopies of printed data, 3D computer validation, and on screen checks in Datamine and Surpac. In addition, physical checks of collar and survey are done by plotting the processed data in section and on plan.

The database system employed at KCC is GDMS which has a built-in data security system. This prevents issues such as data overlaps, duplicates and gaps.

3.2.2.1 Quality Control and Quality Assurance ("QA/QC")

Quality assurance and quality control is the methodology by which confidence levels are measured and maintained for assaying.

The main objectives of QA/QC programs are to:

- Minimize bias from sampling and assaying;
- Ensure the accuracy and precision of assaying; and
- Measure and demonstrate data integrity and validity for resource estimates and grade control.

3.2.2.2 QA/QC Procedure

The QA/QC procedure involves insertion of blanks, duplicates and standard reference material at pre-determined and sequential intervals. Every tenth sample is a blank, every twentieth is a duplicate and every thirtieth sample is a standard reference material with known mean and standard deviations. This cycle is repeated till the end of the hole.

KCC use three types of standard reference material; low, medium and high grade material. This ensures the full range of grade categories of both copper and cobalt are covered.

The reference material assays provide a method by which analytical accuracy is monitored and quantified. There are two parameters of interest when reporting analytical accuracy:

- The relative assay deviation from the expected value of the reference material; and
- The average bias over time.

The deviation of a reference material's assay is measured and expressed as a relative standards deviation, thus making it possible to directly compare reference materials with different standard deviations. Acceptable limits are considered to be 95% of samples submitted to be within ± two standard deviations.

When acceptable limits for reference materials are not achieved the following course of actions are taken:

- Cross-check KCC reference material assays with laboratory submitted reference material assays for the same period and/or batch;
- In the case of bias, determine if it is one reference material type or all reference material types; and
- After discussions with the Laboratory, an experiment may be undertaken to determine the reason for the variance.

3.2.3 Exploratory Data Analysis

3.2.3.1 KTO Mine

Table 9 to Table 11 presents statistics for Kamoto Principal, Etang North and Etang South.

Table 9: Statistical Analysis of Kamoto Principal

Lithology	Variable	No Samples	Minimum	Maximum	Mean	Std. dev
Dstrat		427	0.11	9.56	4.08	1.4
RSF		404	0.14	22	4.79	1.66
RSC_B	**%TCu**	241	0.1	27.4	7.59	3.87
RSC_T		165	0.24	18.3	5.97	3.53
SD1A		326	0.4	22.4	5.87	2.19
Dstrat		393	0.01	8.24	0.36	0.44
RSF		378	0.01	3.15	0.3	0.26
RSC_B	**%TCo**	224	0.03	5.99	0.51	0.68
RSC_T		159	0.01	4.39	0.73	0.65
SD1A		307	0.01	6.4	0.63	0.51

Table 10: Statistical Analysis of Etang South

Lithology	Variable	No Samples	Minimum	Maximum	Mean	Std. dev
Dstrat		89	0.3	7.62	2.89	1.33
RSF		103	0.2	16.16	3.44	1.44
RSC_B	%TCu	50	0.18	12.05	2.98	2.35
RSC_T		39	0.25	12	2.46	1.87
SD1A		155	0.15	13.2	5.92	2.97
Dstrat		91	0.08	17.61	0.75	1.84
RSF		104	0.1	2.55	0.6	0.42
RSC_B	%TCo	49	0.22	5.94	1.22	1.06
RSC_T		40	0.17	2.96	0.96	0.61
SD1A		154	0.07	3.96	1.04	0.74

Table 11: Statistical Analysis of Etang North

Lithology	Variable	No Samples	Minimum	Maximum	Mean	Std. dev
Dstrat	%TCu	28	0.5	3.37	2.03	0.67
RSF		23	0.59	5.15	3.02	1.15
RSC_B		16	0.88	12	3.58	2.8
RSC_T		9	0.67	7.3	3.54	2.54
SD1A		45	0.22	8.07	3.36	1.47
Dstrat	%TCo	23	0.12	0.84	0.42	0.17
RSF		17	0.09	0.99	0.42	0.26
RSC_B		12	0.31	2.32	1.14	0.65
RSC_T		7	0.58	2.52	1.24	0.59
SD1A		31	0.32	2.39	0.82	0.54

3.2.3.2 T17 Open Pit

The lithological wireframes were used to extract the sample data, and the data was composited to 2.5m lengths. Statistics from the composite files are given in Table 12. GAA could reproduce this table.

Table 12: Statistical Analysis of T17 Open Pit

Lithology	Variable	No. Samples	Minimum	Maximum	Mean	Std. dev	CoV
BOMZ	%TCu	386	0,10	15.87	**4.18**	3.36	0.80
SDB		202	0,10	15.87	**5.14**	4.04	0.79
RSC		202	0,00	19.20	**1.65**	2.84	1.72
RSF		135	0,15	10.72	**2.94**	2.47	0.84
DSTRAT		101	0,27	9.85	**3.93**	2.60	0.66
BOMZ	%TCo	386	0,00	7.40	**0.51**	0.87	1.73
SDB		202	0,00	7.40	**0.78**	1.07	1.38
RSC		202	0,00	4.70	**0.44**	0.81	1.84
RSF		135	0,08	7.60	**0.99**	1.18	1.20
DSTRAT		101	0,07	4.06	**0.39**	0.48	1.24

3.2.3.3 KOV Open Pit

Assay data for each lithology were extracted from the database using the lithological wireframes. The lithological sample data were then composited separately at intervals of 2,5 m. The RSC was composited across the entire lithology unit, and the statistics reflect the sample intervals.

Statistics from the lithological composites within each of the four fragments are presented in Table 13 to Table 16.

Table 13: Statistical Analysis of KOV Open Pit; Virgule

Lithology	Variable	No Samples	Minimum	Maximum	Mean	Std dev
BOMZ	%TCu	77	0.10	12.00	3.54	3.10
	%TCo	112	0.00	3.62	0.46	0.67
SDB	%TCu	296	0.02	12.92	5.97	3.60
	%TCo	371	0.00	11.50	0.46	0.84
RSC	%TCu	384	0.08	23.14	4.39	3.47
	%TCo	587	0.00	5.00	0.21	0.40
RSF	%TCu	171	0.14	12.00	6.20	3.03
	%TCo	244	0.00	2.25	0.19	0.32
DSTRAT	%TCu	103	0.50	12.00	6.43	2.41
	%TCo	128	0.00	1.52	0.22	0.31
RATGR	%TCu	49	0.80	14.35	6.36	3.42
	%TCo	103	0.00	0.99	0.09	0.16

Table 14: Statistical Analysis of KOV Open Pit; Oliviera

Lithology	Variable	No Samples	Minimum	Maximum	Mean	Std dev
BOMZ	%TCu	72	0.15	7.88	2.05	1.99
	%TCo	80	0.00	2.25	0.41	0.42
SDB	%TCu	250	0.10	13.68	5.59	2.48
	%TCo	239	0.00	3.66	0.93	0.70
RSC	%TCu	266	0.10	16.59	4.72	3.71
	%TCo	512	0.00	4.58	0.29	0.55
RSF	%TCu	120	0.40	14.99	5.40	3.16
	%TCo	111	0.00	2.90	0.38	0.48
DSTRAT	%TCu	73	0.91	12.00	4.92	2.31
	%TCo	71	0.00	1.61	0.32	0.33
RATGR	%TCu	43	0.60	16.41	4.80	2.78
	%TCo	60	0.00	1.24	0.23	0.33

Table 15: Statistical Analysis of KOV Open Pit; FNSR

Lithology	Variable	No Samples	Minimum	Maximum	Mean	Std dev
BOMZ	%TCu	9	0.53	12.00	5.24	3.41
	%TCo	11	0.00	2.85	0.67	0.89
SDB	%TCu	71	1.11	12.00	7.93	3.16
	%TCo	79	0.00	6.15	0.42	0.88
RSC	%TCu	69	0.15	12.00	5.27	4.28
	%TCo	110	0.00	1.96	0.18	0.29
RSF	%TCu	25	1.66	12.47	5.76	2.40
	%TCo	25	0.02	0.47	0.18	0.13
DSTRAT	%TCu	7	4.30	8.98	7.17	1.48
	%TCo	9	0.00	0.16	0.04	0.05
RATGR	%TCu	2	4.06	8.02	6.04	1.98
	%TCo	2	0.02	0.07	0.04	0.02

Table 16: Statistical Analysis of KOV Open Pit; Kamoto East

Lithology	Variable	No Samples	Minimum	Maximum	Mean	Std dev
BOMZ	%TCu	27	0.17	13.22	6.16	3.31
	%TCo	43	0.00	4.96	0.71	0.97
SDB	%TCu	133	0.08	14.38	6.32	3.34
	%TCo	173	0.00	4.63	0.41	0.59
RSC	%TCu	206	0.11	16.07	4.20	3.72
	%TCo	288	0.00	2.52	0.22	0.29
RSF	%TCu	76	0.21	10.84	5.09	3.11
	%TCu	96	0.00	1.50	0.26	0.30
DSTRAT	%TCo	43	0.21	11.55	5.53	2.89
	%TCu	70	0.00	1.40	0.21	0.28
RATGR	%TCo	15	3.02	9.02	6.37	1.71
	%TCu	25	0.00	0.86	0.13	0.19

3.2.3.4 Mashamba East Open Pit

The lithological wireframes were used to extract the sample data, and the data were composited to 2,5m lengths. Statistics from the composite files are shown in Table 17.

Table 17: Statistical Analysis of Mashamba East Open Pit

Lithology	Geozone	Variable	No Samples	Minimum	Maximum	Mean	Std. dev	CV
BOMZ	WEST	%TCu	125	0.01	10.60	0.48	1.40	2.94
		%TCo	125	0.01	0.44	0.09	0.11	1.20
	EAST	%TCu	66	0.01	12.00	0.70	1.78	2.53
		%TCo	66	0.01	1.08	0.14	0.23	1.65
SDB	WEST	%TCu	237	0.01	19.26	1.19	2.46	2.06
		%TCo	237	0.01	4.14	0.36	0.61	1.69
	EAST	%TCu	64	0.01	9.15	1.82	2.51	1.38
		%TCo	64	0.01	2.63	0.33	0.48	1.42
RSC	WEST	%TCu	248	0.01	12.00	0.60	2.00	3.34
		%TCo	248	0.00	2.01	0.07	0.23	3.24
	EAST	%TCu	112	0.01	12.00	0.69	2.06	2.98
		%TCo	112	0.01	0.66	0.04	0.08	2.31
RSF	WEST	%TCu	440	0.01	12.00	2.28	2.85	1.25
		%TCo	440	0.00	2.80	0.37	0.54	1.46
	EAST	%TCu	119	0.01	11.37	3.83	2.96	0.77
		%TCo	119	0.00	1.28	0.14	0.22	1.56

3.2.3.5 Kananga Mine

The summary statistics of the declustered one-metre composite data of the various rock types are presented in Table 18. The composite data was declustered using a cell size of 25 m E by 25 m N by 1 m RL that approximates the drill-hole spacing in the closer spaced areas.

Table 18: Statistical Analysis of Kananga Mine

Domain	Variable	No Samples	Minimum	Maximum	Mean	CV
UOB_OX	%TCu	250	0.08	10.05	1.13	1.1
MID_OX		528	0.02	0.64	0.16	0.6
LOB_OX		297	0.03	9.28	1.93	0.8
UOB_SL		122	0.01	6.1	1.83	0.6
MID_SL		269	0.02	1	0.26	0.6
LOB_SL		234	0.13	6.75	2.18	0.6
UOB_OX	%AsCu	250	0.02	9.05	0.85	1.2
MID_OX		528	0.01	0.62	0.12	0.8
LOB_OX		297	0.01	9.26	1.26	1.1
UOB_SL		122	0.01	1.61	0.15	1.2
MID_SL		269	0.01	0.39	0.07	1
LOB_SL		234	0.01	2.99	0.22	1.6
UOB_OX	%TCo	250	0.06	4.51	0.64	1.2
MID_OX		528	0.02	2.73	0.27	0.8
LOB_OX		297	0.02	3.37	0.7	0.8
UOB_SL		122	0.01	4.79	0.94	1.1
MID_SL		269	0.06	2.03	0.53	0.6

Domain	Variable	No Samples	Minimum	Maximum	Mean	CV
LOB_SL		234	0.02	3.49	1.05	0.7

3.2.3.6 Tilwezembe Open Pit

The summary statistics of the declustered one-metre composite data of the various rock types are presented in Table 19. The composite data was declustered using a cell size of 25 mE by 25 mN by 1 mRL that approximates the drill-hole spacing in the closer spaced areas.

Table 19: Statistical Analysis of Tilwezembe Open Pit

Domain	Variable	Samples	Minimum	Maximum	Mean	CV
OX_MNDOL	%TCu	1054	0.01	26.5	1.27	1.91
OX_BREC		485	0.1	19.84	3.78	0.89
OX_TILAR		674	0.05	4.92	0.56	1.05
SL_MNDOL		511	0.03	37	1.19	2.42
SL_BREC		339	0.02	21.38	3.29	0.97
SL_TILAR		406	0.01	6.27	0.53	1.28
OX_MNDOL	%ASCu	1054	0.01	14.12	0.91	1.85
OX_BREC		485	0.05	14.28	3.16	0.96
OX_TILAR		674	0.01	4.9	0.44	1.17
SL_MNDOL		511	0.01	6.88	0.24	2.97
SL_BREC		339	0.01	3.52	0.33	1.19
SL_TILAR		406	0.01	1.09	0.13	1.21
OX_MNDOL	%TCo	1054	0.01	11.15	0.5	1.47
OX_BREC		485	0.01	13.47	0.96	1.58
OX_TILAR		674	0.01	3.61	0.29	1.02
SL_MNDOL		511	0.01	7.94	0.38	1.52
SL_BREC		339	0.03	4.98	1.19	1.01
SL_TILAR		406	0.02	4	0.34	1.15

3.2.4 Variography Analysis

The objectives of variography are to establish the major directions of continuity and to provide the variogram parameters required for geostatistical grade interpolation. The experimental semi-variogram (commonly referred to as the variogram) is the basic diagnostic tool of geostatistics. It is a mathematical function used to quantify the spatial variation and correlation of sample grades in various directions in a deposit. The variogram calculation is similar to the variance and it is arithmetically simple: the differences between pairs of sample values a particular distance apart are squared. This is repeated for increasing distances for all samples within a homogeneous zone. The variogram value is the sum of the squared differences divided by twice the number of pairs.

The experimental variogram can incorporate several important geological characteristics of a deposit in the estimation process. In order to use the experimental variogram in practical applications, the information it conveys must be quantified by fitting a smooth curve (called a model variogram) to the experimental variogram data points. The model variogram is based on a numerical equation and the numerical parameters are used to control various factors of geostatistical grade interpolation. There are a number of standard models that are used.

As the experimental variogram is based on a variance function and the variances must be positive, the model used must be such that all the values calculated from it are positive. It is best to use one of the various models that have been found, from experience, to be representative of the spatial variation that exists in ore deposits. The spherical scheme model is most widely used; other models include exponential model, Gaussian models, etc.

The variography parameters as reported by SRK and reproduced by GAA, is shown per area from Table 20 to Table 29.

Table 20: KTO Mine: Omni-directional Variography Parameters

Lithology	DSTRAT		RSF		RSC		SDB		BOMZ	
Variable	%TCu	%TCo	%TCu	%TCo	%TCu	%TCo	%TCu	%TCo	%TCu	%TCo
C0 Nugget Variance	0.01	0	0.031	0.003	0.043	0.004	0.124	0.005	0.042	0.021
C1 Variance	1.26	0.07	1.97	0.12	2.29	0.11	3.26	0.17	1.83	0.18
Range 1 XDirection	9.96	11.87	3.92	3.05	7.83	7.52	6.98	10.96	7.93	56.65
Range 1 YDirection	9.96	11.87	3.92	3.05	7.83	7.52	6.98	23.97	7.93	170
Range 1 ZDirection	5.4	8.4	3.92	8.5	6.7	7.2	6.98	4.96	7.8	11.68
C2 Variance	1.83	0.03	2.82	0.12	5.08	0.11	5.31	0.27	1.39	
Range 2 XDirection	30.98	147.85	30.17	184.05	52.19	70.59	74.36	31.98	272.1	
Range 2 YDirection	30.98	147.85	30.17	184.05	52.19	70.59	74.36	324.92	272.1	
Range 2 ZDirection	24.1	18.2	8.5	15.3	27.4	7.2	8.3	11.3	20.3	
C3 Variance	1.44		1.82				2.43			
Range 3 X Direction	324.96		296.61				189.72			
Range 3 YDirection	324.96		296.61				189.72			
Range 3 ZDirection	24.1		20.3				27.4			

Table 21: T17 Open Pit: Omni-directional Variography Parameters

Zone	Variable	C0 Nugget Variance	C1 Variance	Range	C2 Variance	Range2
DSTRAT	%TCu	0.5135	1.775	232.79		
	%TCo	0.03565	0.04481	397.72		
RSF	%TCu	1.589	2.356	126.01	3.421	565.56
	%TCo	0.08955	0.1464	321.98		
RSC	%TCu	0.1042	1.87	178.33		
	%TCo	0.006679	0.2475	180.73		
SDB	%TCu	0.3691	0.8281	256.58		
	%TCo	0.01728	0.05536	194.02		
BOMZ	%TCu	1.984	3.257	283.48		
	%TCo	0.03098	0.02172	283.32		

Table 22: KOV Open Pit: Omni-directional Variography Parameters for Virgule

Lithology	Variable	C0 Nugget Variance	C1 Variance	Range
BOMZ	%TCu	1.65	3.38	309.38
	%TCo	0.03	0.07	204.17
SDB	%TCu	8.74	3.78	380.12
	%TCo	0.05	0.13	204.08
RSC	%TCu	8.59	3.44	209.69
	%TCo	0.08	0.07	266.89
RSF	%TCu	2.44	0.68	245.78
	%TCo	0.00	0.01	217.35
DSTRAT	%TCu	3.06	2.51	243.89
	%TCo	0.01	0.01	317.03

Table 23: KOV Open Pit: Omni-directional Variography Parameters for Oliviera

Lithology	Variable	C0 Nugget Variance	C1 Variance	Range
BOMZ	%TCu		2.68	289.22
	%TCo	0.04	0.06	284.57
SDB	%TCu	3.15	1.17	303.40
	%TCo	0.01	0.03	192.65
RSC	%TCu	3.19	1.56	261.88
	%TCo	0.03	0.01	221.57
RSF	%TCu	1.01	2.90	265.60
	%TCo	0.00	0.02	178.66
DSTRAT	%TCu	0.28	1.12	350.92
	%TCo	0.02	0.09	253.91

Table 24: Mashamba East Open Pit: Omni-directional Variography Parameters

Lithology	Variable	C0 Nugget Variance	C1 Variance	Range
RSF	%TCu	1.943	1.425	157.67
	%TCo	0.04157	0.08539	332.59
RSC	%TCu	1.006	0.6158	210.88
	%TCo	0.07737	0.03845	256.14
SDB	%TCu	1.235	1.564	216.8
	%TCo	0.05093	0.1141	291.64
BOMZ	%TCu	0.1709	2.731	353.88
	%TCo	0.02193	0.03127	467.49

Table 25: Tilwezembe Open Pit: Variogram Parameters for Manganiferous Dolomites

Variable (%)	C0 Nugget Variance	Structure 1				Structure 2				Direction (Major, Semi-major, Minor)
		C1 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	C2 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	
%TCu	0.05	0.52	40	20	7	0.43	160	60	14	70,160,-40
%TCo	0.04	0.59	40	15	12	0.37	130	70	12	70,160,-40
%TMn	0.05	0.63	30	10	8	0.32	160	70	12	70,160,-40

Table 26: Tilwezembe Open Pit: Variogram Parameters for Breccia

Variable (%)	C0 Nugget Variance	Structure 1				Structure 2				Direction (Major, Semi-major, Minor)
		C1 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	C2 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	
%TCu	0.12	0.13	20	70	10	0.75	160	70	10	70,160,-60
%TCo	0.11	0.22	40	10	3	0.19	40	100	12	70,160,-60
%TMn	0.22	0.48	30	50	7	0.3	180	50	7	70,160,-60

Table 27: Tilwezembe Open Pit: Variogram Parameters for Tillites and Argillites

Variable (%)	C0 Nugget Variance	Structure 1				Structure 2				Direction (Major, Semi-major, Minor)
		C1 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	C2 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	
%TCu	0.15	0.4	110	80	15	0.44	125	110	15	80,170,-45
%TCo	0.09	0.18	180	50	2	0.73	180	50	20	80,170,-45
%TMn	0.12	0.53	35	90	12	0.36	160	90	12	80,170,-45

Table 28: Kananga Mine: Variogram Parameters for Upper Orebody

Variable (%)	C0 Nugget Variance	Structure 1				Structure 2				Direction (Major, Semi-major, Minor)
		C1 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	C2 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	
%TCu	0.1	0.62	60	90	11	0.36	300	90	11	65,155,-40
%TCo	0.06	0.61	50	20	9	0.33	300	70	9	55,145,-35
%TMn	0.23	0.29	60	10	9	0.49	180	140	9	55,145,-35

Table 29: Kananga Mine: Variogram Parameters for Internal/Middle Zone

Variable (%)	C0 Nugget Variance	Structure 1				Structure 2				Direction (Major, Semi-major, Minor)
		C1 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	C2 Variance	Range Dir 1 (m)	Range Dir 2 (m)	Range Dir 3 (m)	
%TCu	0.12	0.41	50	20	10	0.47	460	230	25	65,155,-40
%TCo	0.02	0.47	70	50	11	0.51	340	290	27	55,145,-35
%TMn	0.05	0.53	50	130	13	0.41	360	130	13	55,145,-35

3.2.5 Estimation Parameters

3.2.5.1 Estimation Plan

There are a number of methods used in grade estimation. These methods may be based on the presence or absence of a variogram. For data that is spaced too far apart, or where a variogram cannot be generated, the inverse distance method of interpolation may be appropriate.

Kriging is another method that may be used. Kriging allocates weights based on the distance of the sample from the point or block being estimated, to the sample points surrounding the point or block for which grade is to be estimated. By allocating these weights to the samples, it ensures that the estimation error is minimised, ensuring the best estimation possible for that block. The error associated with estimation is called the kriging variance.

Ordinary Kriging ("OK") was used for the purpose of this project, which is a specific algorithm that satisfies unbiasedned by ensuring that the kriging weights in the local estimation are summed to 1. The results from the variography analysis were used during the estimation of each project area.

3.2.5.2 Density Assignment and Determinations

Historically, GCM assigned density values based on the categorization of the ore type into dolomitic or non-dolomitic (siliceous) and its copper grade and based on an exhaustive dataset available from all GCM operations within the Katangan Copperbelt. A sample was considered dolomitic when the %TCu divided by the %CaO in the sample was less than or equal to 15 and non-dolomitic (siliceous) when it was greater than 15. GCM generalized empirical criterion defined three main categories of densities as shown in the table below.

Table 30: GCM criteria for assigning density values

Definition and Criterion	Density, t/m^3
Siliceous= (%TCu/%CaO) >=15	
TCu>1<2%	2.0
TCu>2.0%. with <0.5% Cu Sulphite content	2.2
TCu>1<2%, with >1% TCo content	2.2
TCu >2.0%, with >0.5% Cu Sulphite content	2.4
Dolomitic = (%TCu/%CaO) <15	
TCu >1<2%	2.4
TCu >2.0%, with <0.5% Cu Sulphite content	2.4
TCu >2.0%, with >0.5% Cu Sulphite content, >=0.5%Cu Oxide	2.4
TCu >2.0%, with >0.5% Cu Sulphite content, <=0.5%Cu Oxide	2.6

According to the GCM criterion, waste rock was generally assigned a density of 2.0 t/m^3 if it was siliceous and 2.4 t/ m^3 if the rock was considered dolomitic.

During the 2008 feasibility study, SRK reviewed the historical assayed dataset for all the projects in the application of these criteria and found that there were proportionately fewer assays for %CaO than the %TCu assays available for these criteria to be applied. However, SRK consider these values as guidelines for the possible ranges of density within the respective mineralized zones.

KTO Mine

CCIC undertook limited density determinations of the various stratigraphic units to verify GCM empirical density values. The determinations were undertaken on selected lithological cores using Archimedes' Principle, by which a sample is weighed in air and then in water using a Clover Scale. The measured masses then are entered into a simple formula to calculate the density. CCIC limited density determinations for KTO Mine are presented in the table below by stratigraphic unit.

Table 31: KTO Mine: Density Determinations on Various Lithologies

Stratigraphic Unit	Number of samples	Minimum t/m^3	Maximum t/m^3	Average t/m^3	Stratigraphic Unit
SD1a	9	2.69	2.90	2.80	SD1a
BOMZ	8	2.74	2.92	2.86	BOMZ
RSC	8	2.51	2.96	2.69	RSC
RSF	6	2.57	3.03	2.81	RSF
DSTRAT	5	2.66	3.02	2.81	DSTRAT
Grey RAT	3	2.64	2.77	2.70	Grey RAT
Red RAT	3	2.63	2.75	2.67	Red RAT

On the basis of the limited density determinations, CCIC concluded that GCM approach was conservative and that upside potential existed with regard to the calculated resource tonnages, but recommended that bulk density determinations should be undertaken before higher density values can be used in the Resource Model.

CCIC used the average density values of 2.7 t/m^3 from the GCM table for the conversion of volume to tonnes for the KTO Mine model.

T17 Open Pit

CCIC undertook limited density determinations of the various stratigraphic units to verify GCM empirical densities. The determinations were undertaken on selected lithological cores using the Archimedes' Principle by which a sample is weighed in air and then in water using a Clover Scale. The measured masses then are entered into a simple formula to calculate the density. CCIC limited density determinations for T17 Open Pit are presented in the table below by stratigraphic unit.

Table 32: T17 Open Pit: Density Determinations on Various Lithologies

Stratigraphic Unit	Number of samples	Minimum t/m^3	Maximum t/m^3	Average t/m^3
SDB	7	2.10	2.76	2.38
BOMZ	1	2.09	2.09	2.09
SDB	7	2.10	2.76	2.38
RSC	5	2.21	2.63	2.34
RSF	6	2.06	2.51	2.32
DSTRAT	5	1.88	2.40	2.13

As a cross check and by way of a second method, CCIC also submitted samples for density checks to Set Point Laboratories where density determinations were undertaken using a multivolume gas pycnometer 1305 for helium displacement.

Two samples were also tested by the Mintek laboratory in Johannesburg and these provided figures of 2.84 for the siliceous material from Musonoie-T17 West, and 2.74 for the dolomitic material from the same Resource Area. The method of density determination undertaken by Mintek has not been specified in the CCIC report.

On the basis of the limited density determinations, CCIC indicated that GCM approach was conservative and upside potential existed with regard to the calculated resource tonnages. However, CCIC recommended that

bulk-density determinations should be undertaken before higher density values can be used in the Resource Model.

For the conversion of volume to tonnage in the T17 Open Pit model, CCIC applied density values of 2.2 t/m^3 and 2.4 t/m^3 consistent with the GCM categories of oxide and mixed ore types.

KOV Open Pit

In the models generated for KOV Open Pit, SRK used an inferred density of 2.2 t/m^3. The inference is based on the visual inspection of the mineralization in the cores and observations in the field, where the predominant copper mineral is malachite.

Intersections of mineralization from the drilling at KOV Open Pit confirm that the predominant mineralization is malachite, considered as an oxide, with minor sulphides at depth. There are limited density determinations from selected cores of the recent drilling. Although considered statistically inadequate to represent the sample dataset, indications from these determinations are that the density applied is appropriate.

Mashamba East Open Pit

CCIC undertook limited density determinations of the various stratigraphic units to verify GCM' empirical density values in the Mashamba East Open Pit. The method is as described above under Kamoto Mine. CCIC's limited density determinations for Mashamba East Open Pit are presented in the table below, by stratigraphic unit.

Table 33: Mashamba East Open Pit: Density Determinations on Various Lithologies

Stratigraphic Unit	Number of samples	Minimum t/m^3	Maximum t/m^3	Average t/m^3
SDB	17	2.34	2.76	2.52
RSC	10	2.40	2.61	2.51
RSF	5	2.28	2.50	2.39

CCIC used the average density values of 2.2 t/m^3 and 2.4 t/m^3 from the GCM table for the conversion of volume to tonnes in siliceous and dolomitic mineralized zones respectively for the for the Mashamba East model.

Kananga Mine

The procedures adopted for the density determinations at Kananga are the same as described for Tilwezembe and the values are listed in the table below.

Table 34: Kananga Mine: Density Determinations on Various Lithologies

Domain	Declustered mean
Upper ore body oxides (UOB_OX)	1.8
Middle low-grade oxides (MID_OX)	1.8
Lower ore body oxides (LOB_OX)	2
Upper ore body sulphides (UOB_SL)	2.1
Middle low-grade sulphides (MID_SL)	2
Lower ore body sulphides (LOB_SL)	2.1

Tilwezembe Open Pit

Snowden undertook density determinations on selected core samples using Archimedes' Principle. The sample core pieces of approximately 100 mm to 200 mm length were wrapped in cling-film (Saran wrap) to prevent oxidation and weighed first in air and then when submerged in water. The difference in the weights is the weight of the water displaced.

No work has been done to determine the free moisture content of the samples. Resultantly, wet bulk densities were used during estimation.

Snowden indicate that no relationship exists between grade and density and therefore, bulk density factors were determined for each geological unit from the means of the specific gravity measurements after outliers were cut from the dataset. The de-clustered means were used and a maximum of 5% of the composites were cut from the dataset. The composite data was declustered using a cell size of 25 mE by 25 mN by 1 mRL that approximates the drill-hole spacing. The bulk densities are presented in the table below.

Table 35: Tilwezembe Open Pit: Density Determinations on Various Lithologies

Domain	Bottom Cut	Top Cut	Percentage cut	Declustered mean (before cut)	Declustered mean (after cuts)
Ox_MnDol	1.1	3	5	2.04	1.96
Ox_Brec	-	2.7	4	1.9	1.81
Ox_TillArg	-	3	5	2.09	1.98
Sl_MnDol	-	2.6	3	2.28	2.26
Sl_Brec	1.5	2.7	3	2.23	2.24
Sl_TillArg	1.8	2.5	3	2.18	2.18

Summary

The table below indicates the densities that have been used in the conversion of volume to tonnes within the various project areas.

Table 36: Kananga Mine: Density Determinations on Various Lithologies

Project Area	Mineralized Zone	Density, t/m^3
T17 Open Pit	Oxide mineralized Zones	2.2
	Sulphide mineralized Zones	2.4
Tilwezembe Open Pit	Ox_MnDol	1.96
	Ox_Brec	1.81
	Ox_TillArg	1.98
	Sl_MnDol	2.26
	Sl_Brec	2.24
	Sl_TillArg	2.18
KTO Mine	All	2.7
Kananga Mine	Upper ore body oxides (UOB_OX)	1.8
	Middle low-grade oxides (MID_OX)	1.8
	Lower ore body oxides (LOB_OX)	2
	Upper ore body sulphides (UOB_SL)	2.1
	Middle low-grade sulphides (MID_SL)	2.0
	Lower ore body sulphides (LOB_SL)	2.1
KOV Open Pit	All	2.2
Mashamba East Open Pit	Oxide mineralized zones	2.2
	Mixed mineralized zones	2.4

3.2.6 Mineral Resource Classification

As part of this MER, GAA reviewed the Mineral Resource estimation methodologies and results from the estimations as produced by SRK and other independent consultancies.

The Mineral Resources for all the mines were estimated in accordance with the JORC Code. The following were considered when classifying the Mineral Resources:

- The quantity, quality and age of the data used in the generation of the mineral resources;
- The availability of assays in portions of the package due to selective sampling on the basis of visible copper mineralization;
- The relatively incomplete assays for %ASCu and %CaO compared to the %TCu data in the historical data;
- Limited density determinations undertaken on the various lithologies;
- The risk in the data informing the Mineral Resource estimate;
- The robustness of the geological model;
- Historical mining activities and the reconciliation of tonnes and grade; and
- The risk in the grade estimates.

The classification of the resources is considered to be conservative, due to the large bulk of historical data that had to be used during the resource estimation for the 2008 feasibility study. As new data becomes

available, using modern drilling and sampling techniques and controls, the confidence in the resource estimate will increase, and therefore the resource classification may be upgraded.

3.2.7 Mineral Resource Statement

Table 37 represents the consolidated Mineral Resources of the various areas of KCC as on 31 December 2010. The actual mined out areas as on 31 October 2010 were used in conjunction with the forecasted tonnes for the last two months of the year.

Table 37: KCC: Consolidated Mineral Resources as at 31 December 2010

Classification	Project Area	Mt	%TCu	%TCo
Measured	KTO Mine	30.7	4.54	0.54
	Subtotal	30.7	4.54	0.54
Indicated	KTO Mine	35.7	4.69	0.6
	Mashamba East Open Pit	75.0	1.80	0.38
	T17 Open Pit	8.5	2.75	0.87
	KOV Open Pit	123.9	5.37	0.4
	Kananga Mine	4.1	1.61	0.79
	Tilwezembe Open Pit	9.5	1.89	0.6
	Subtotal	256.7	3.95	0.45
Total Measured and Indicated	KTO Mine	66.4	4.62	0.57
	Mashamba East Open Pit	75.0	1.80	0.38
	T17 Open Pit	8.5	2.75	0.87
	KOV Open Pit	123.9	5.37	0.4
	Kananga Mine	4.1	1.61	0.79
	Tilwezembe Open Pit	9.5	1.89	0.6
	TOTAL	287.4	4.02	0.46
Inferred	KTO Mine	10.6	5.11	0.59
	Mashamba East Open Pit	65.3	0.76	0.1
	T17 Open Pit	15.3	1.91	0.61
	KOV Open Pit	71.2	3.56	0.32
	Kananga Mine	4.0	2.00	0.98
	Tilwezembe Open Pit	13.8	1.75	0.60
	Total	180.2	2.32	0.32

1) Mineral Resources have been reported in accordance with the classification criteria of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2004 Edition (The JORC Code).

4) Mineral Resources are inclusive of Ore Reserves.

5) Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.

4.0 DESCRIPTION OF RESERVES

4.1 Overview of Mining Operations

Ukwazi Group visited the Material Assets of KCC during October 2010 and received geological and mineralogical data to assess and optimise mining plans developed for LOM. The active operations for KCC can be classified into underground operations, namely Kamoto underground mine ("KTO") and surface mining operations, namely T-17 Open Pit and KOV Open Pit.

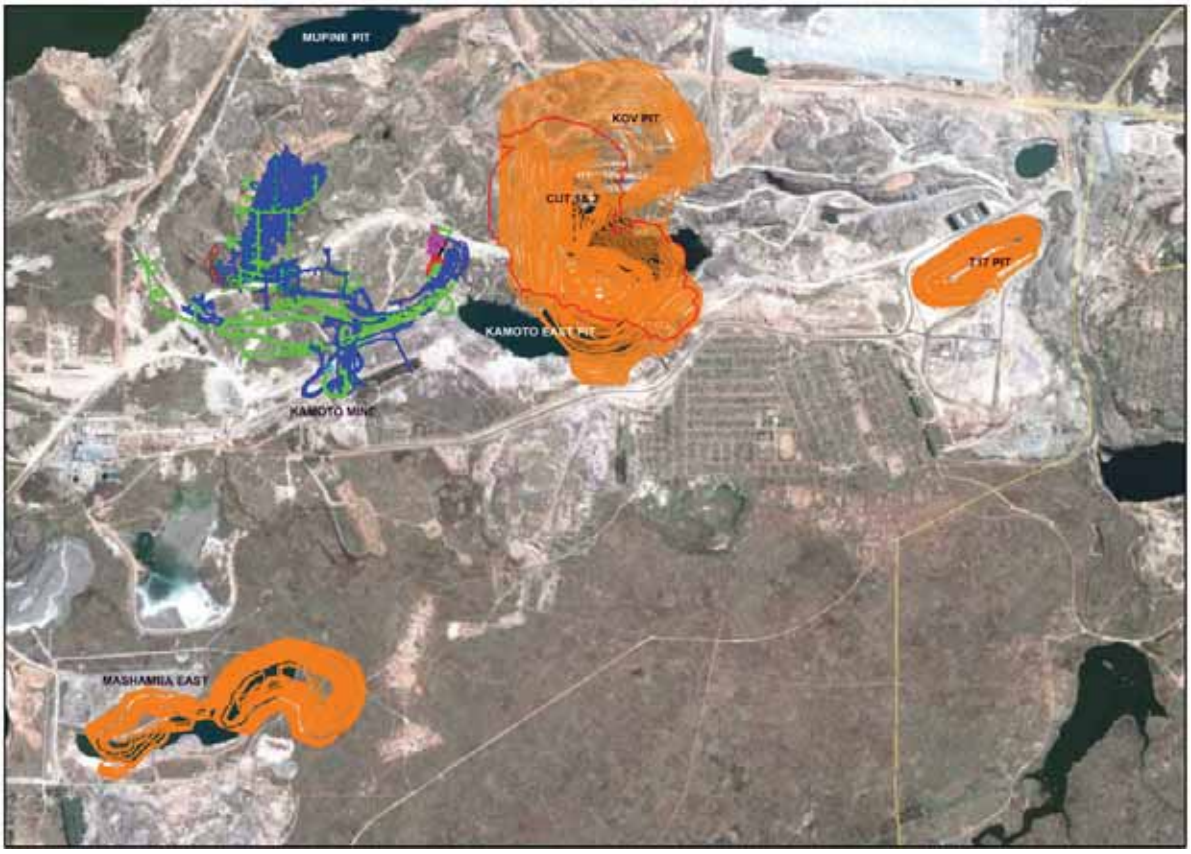

Figure 11: Relative Location of KCC Mining Assets

Underground operations included in the current LOM Plan are the operational KTO mine and two future projects of Kamoto East underground ("KTE") and T-17 underground.

KTO is an operational mine that produced 0.5 million tonnes run-of-mine ("ROM") sulphide ore in 2008, 1.1 million tonnes at 3.9% Cu in 2009 and 1.3 million tonnes at 3.8% Cu in 2010. The current plan is to ramp yearly production to 2.2 million tonnes sulphide ore, to coincide with the completion of the Phase 4 processing plant expansion. The KTO life of mine ("LOM") plan and reserve estimate stated in this report, is based on the feasibility study conducted by SRK Consulting in 2008 and depleted on a yearly basis to declare reserves. The ROM head grade remains relatively constant over the LOM production of 37 million tonnes, at an average 3.85% Cu head grade.

A range of mining methods is used and planned for KTO that includes Room and Pillar ("RAP"), Cut and Fill ("CAF") and Sublevel Caving ("SLC"). Mining related modifying factors applied are based on actual historic mining method performance. The dilutions and mining over breaks applied vary from 4% to 13% and mining

extractions, including geological losses from 90% to 50%, depending on the mining methodology used. Waste rock and cemented backfill is applied depending on the mining methodology in each production area

The KTO mine plan is based on proved and probable mineral reserves with only 10% inferred resources included in the LOM plan. The high levels of development required for the production ramp up poses a risk to the achievement of this profile. Any delay in the development required would result in a delayed ramp up profile from KTO.

Two underground mines are planned for a production ramp up from 2018 to replace or supplement production from the open pit operations. Conceptual work has been completed on both the T-17 underground and KTE underground projects.

The KTE underground production schedule is based on mining a portion of the vertical Kamoto East resource not included in the KOV Open Pit optimisation. A minimum pillar with a width of 30m is allowed for between the KOV Open Pit and underground workings. Mining related modifying factors are based on historical dilutions, extractions and losses achieved for an SLC mining method at KTO. The total ROM production scheduled is 20.5 million tonnes at 4.4% Cu and peaks at a yearly production of 2.4 million tonnes ROM from 2027. Access to the underground workings is from the existing underground infrastructure with an additional incline developed for the handling of ore by a crusher and conveyor infrastructure.

Current estimates on the capital cost requirements to develop and operate KTE through the LOM plan are USD360 million excluding contingencies. This allowance includes costs for dewatering, mining equipment, initial access development, ventilation requirements and underground engineering installations from 2017 up to first ore production in 2019. Additional technical work is required before the production from KTE can be converted to reserves.

Ore extraction from the T-17 underground mine is scheduled at a total of 13.7 million tonnes ROM at a head grade of 2.6% Cu. The T-17 underground schedule is based on the T-17 resource which is directly beneath the current T-17 Open Pit and at an elevation below 1 270m. A minimum crown pillar of 30m is allowed for to prevent subsidence at surface. Mining related modifying factors are based on historical dilutions, extractions and losses achieved for the longitudinal and transversal mining methods currently used at the KTO. The production scheduled peaks at a yearly production of 1.4 million tonnes ROM. Access to the underground workings is by a decline ramp system with ore conveyance to surface by a fleet of haulers.

Current estimates on the capital cost requirements to develop and operate T-17 underground through the LOM plan is USD 231 million excluding contingencies. This allowance includes costs for dewatering, mining equipment, initial access development, ventilation requirements and underground engineering installations and infrastructure from 2015 up to first ore production in 2018. Additional technical work is required before the production from the T-17 underground mine can be converted to reserves.

Three surface operations are included in the LOM plan, namely T-17 Open Pit, KOV Open Pit and Mashamba East Open Pit. Tilwezembe Open Pit and Kanaga Mine are not included and require further technical study. The LOM plan and resulting reserve estimate for the surface operations was determined by first principles. The processes include a mining model, pit optimisation to determine the economic pit extent and subsequent designs and schedules. All mining operations are conducted by a mining contractor with technical control and management support from KCC.

T-17 Open Pit is approaching depletion and surface mining will conclude within the current open pit economic boundaries during 2012. A total of 2.0 million ROM tonnes at 2.53% Cu was produced during the 2010 calendar year. A cut-off of 0.6%Cu has been applied which resulted in 30% mining losses of material below the specified cut-off grade. Mining dilutions of 10% is planned while a 5% geological loss is allowed for. The production plan is to achieve a total of 1.4 million tonnes of ROM oxide ore during 2011 and 2012 at an average head grade of 2.6% Cu. The production scheduled up to 2012 is converted to probable mineral reserves.

KOV Open Pit is a recently dormant pit that is currently in the final stages of dewatering and in the production ramp up phase. A total of 0.7 million ROM tonnes at 4.21% Cu were produced from KOV Open Pit in 2010. The operation is planned in two phases, namely Cuts 1&2 followed by Cuts 3&4. Mining related modifying factors include 1% mining losses below a cut of grade of 0.6% Cu and mining dilutions of 9% with a 5% applied geological loss. The KOV Open Pit delivers a ROM head grade of 4.1% Cu for a total of 83.1 million tonnes of ROM ore up to the year 2030. Ore production from the KOV Open Pit is primarily oxide material at 78% on average. The mineral reserve is estimated at 55.7 million tonnes at 4.7% Cu, classified as probable mineral reserve.

Mashamba East Open Pit is a dormant pit that requires dewatering. A total ROM production of 12.8 million tonnes at 2.8% Cu is planned at a production rate of 1.8 million tonnes per year. Mining related modifying factors applied include 9% dilution and 5% geological losses. Due to the high portion of low grade material in this pit, the mining losses below the applied cut-off grade of 0.6% Cu is as high as 39% of the in-pit resource. Mashamba East Open Pit produces only oxide ore and the probable mineral reserve is estimated at 5.9 million tonnes at 3.0% Cu.

The major risks that could have a negative impact on the planned production profile from the surface operations are dewatering, access and slope failures, available pit space, and available waste dumping space and grade control. These aspects could be mitigated by good operational management with specific reference to KOV Open Pit due to the high required production rate.

The cumulative LOM production profile for the KCC operation ramps up to a peak of more than 10 million tonnes per annum. Assuming that the processing plant is constrained by recovered copper, the production target of 310 000 tonnes of copper recovered per year for the Phase 4 expansion is achieved up to the year 2027. The cumulative waste stripping requirements for the three open pit operations are high at a peak of 50 million tonnes per year.

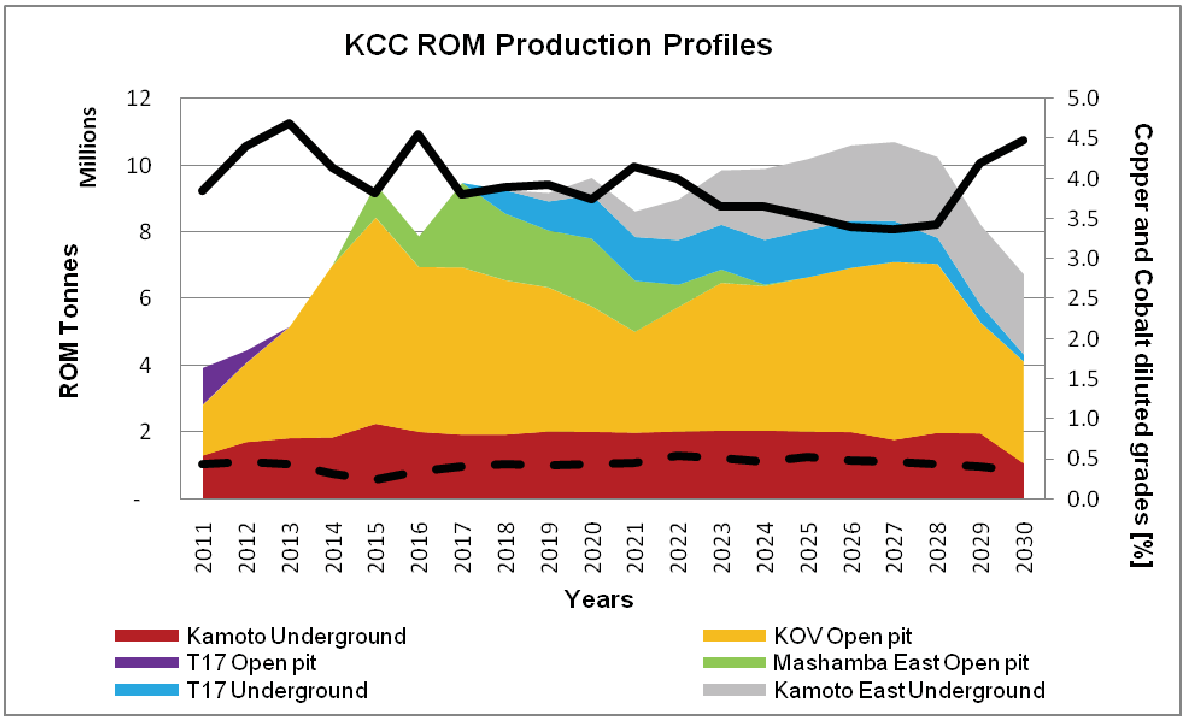

Figure 12: KCC ROM Production Profile

The recovered copper contribution from each of the operations at KCC can be seen below. It is noted that KOV Open Pit produces the majority of the recovered copper over the project life based on the current LOM plan.

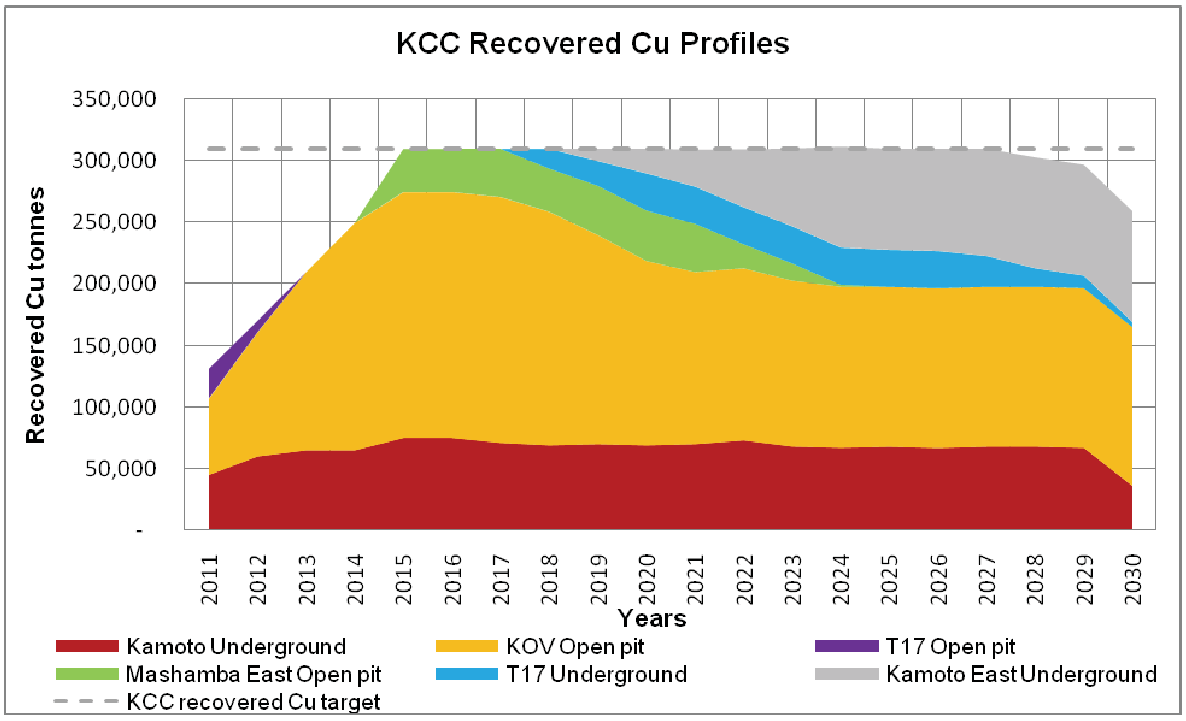

Figure 13: KCC Recovered Copper Production Profile

The total mineral reserve estimate for KCC is 97 million tonnes at 4.2% Cu of which 14.6 million tonnes is from the proved mineral reserve category.

Table 38: Mineral Reserve Estimate

Mining operation	Proved			Probable			Total		
	Tonne (*000)	% TCu	% TCo	Tonne (*000)	% TCu	% TCo	Tonne (*000)	% TCu	% TCo
KTO	14 589	3.47	0.51	19 400	3.70	0.53	33 989	3.60	0.52
T-17 Open Pit				1 470	2.61	0.46	1 470	2.61	0.46
Mashamba East Open Pit				5 914	3.00	0.37	5 914	3.00	0.37
KOV Open Pit				55 666	4.73	0.45	55 666	4.73	0.45
Total	**14 589**	**3.47**	**0.51**	**82 450**	**4.33**	**0.46**	**97 039**	**4.20**	**0.47**

A variance exist relative to the reserve statement dated 31 December 2009 which can be attributed to mining depletion and the optimisation of KOV Open Pit and Mashamba East Open Pit based on updated technical, cut-off and economic criteria. With the optimisation of KOV Open Pit, the mining strategy was adjusted to include the bulk of the Kamoto East ore resource as part of future underground mining with access from the existing KTO mine infrastructure. On this basis, the Kamoto East ore resource has now been excluded from the reserve statement pending finalisation of mine plans for KTE.

4.2 Underground Mining Operations and Projects

Previous design and engineering studies undertaken for KTO include a feasibility study by Read, Swatman & Voigt (Pty) Ltd ("RSV") in 2006, a detailed design by RSV in 2007 and a feasibility study by SRK Consulting ("SRK") in 2008. The LOM plan and reserve estimate outlined in this report is based on the feasibility study conducted by SRK in 2008. Extracts from the KTO feasibility are included below.

4.2.1 KTO Mine

An overall layout of KTO Mine, illustrating the various mining zones is shown in Figure 14. This figure is a graphical representation of the design areas as discussed in this section.

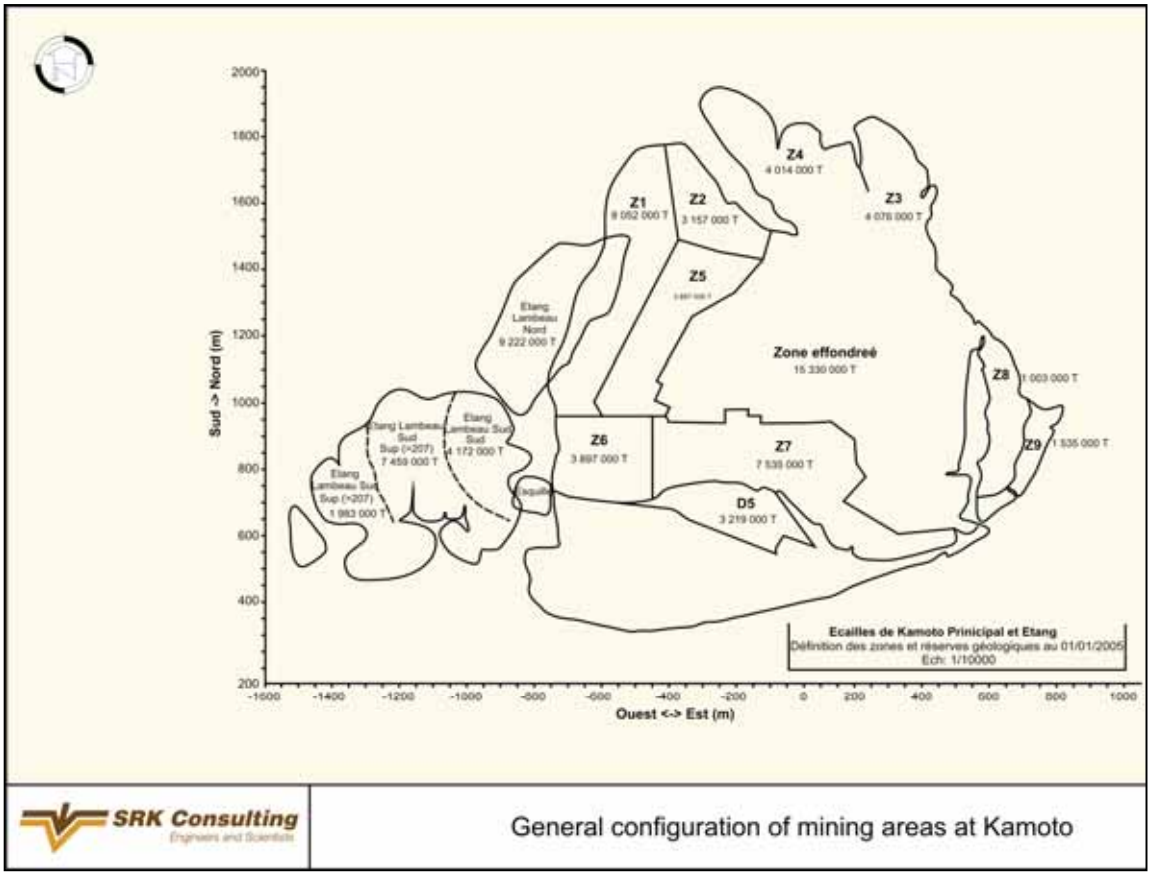

Figure 14: General Configuration of Mining Areas at KTO

Details of zone geometry and mining methods that were considered by SRK in 2008 together with an indication of ore tonnages available have allowed for the relative importance of each zone to be determined, as presented below.

Table 39: Summary of Proposed Mining Methods

Zone	Geometry	SRK 2008 Feasibility Study
Z1 Bottom and Top OBS and OBI	Flat & steeply dipping portions.	CAF
Z2 OBS and OBI	Flat & steeply dipping portions.	CAF
Z3 & Z4 OBS	Flat	RAP
Z3 & Z4 OBI	Flat	RAP
Z5 OBS	Flat	RAP
Z5 OBI	Flat	RAP
Z6 OBI	Flat & steeply dipping portions.	PPCF and CAF
Z7 OBI	Very steeply dipping	SLC
Z8 OBS	Flat	RAP
Z8 OBI	Flat	RAP
Z9 OBS	Very steeply dipping	SLC
Z9 OBI	Very steeply dipping	SLC
Etang OBS & OBI	Steeply dipping	PPCF and CAF
Etang North OBS & OBI	Steeply dipping	PPCF and CAF
Etang Middle & Bottom OBS & OBI	Steeply dipping	PPCF and CAF

4.2.1.1 Design Constraints Applicable to KTO

Particular characteristics of the Kamoto orebody that influence mining practice and geotechnical conditions include:

- Presence of a collapsed zone in the central “Plateure” portion of the ore body, which may influence stress distributions acting on adjacent areas;
- Mining, and subsequent backfilling and waste dumping in the Kamoto North Open Pit directly overlying the underground workings, which also may influence stress distributions underground;
- Underground mining will take place in conjunction with development of the KOV Open Pit lying to the East, which may influence stress distributions;
- Overlying mined areas and flooded areas in the dormant Kamoto East Open Pit, east of Zone 9 currently pose a water-ingress hazard. Should Zone 9 mining proceed before dewatering, a monitoring program should be introduced to provide early warning of such ingress;

- With the exception of the Etang mining zones and Zone 3 and Zone 4, the ore body generally has been extensively mined and new operations must interact with old workings;
- The dip of the ore body varies from flat to near vertical. For the purposes of mining-method classification, a dip range from 0º to 12º is considered to be flat, from 13º to 55º to be steeply dipping and greater than 56º to be very steeply dipping. At < 45º ore body dip, ore that is blasted will not run readily to gathering points.
- Mining methods within the ore body are required to maximize recovery of ore;
- Hanging-wall strata immediately overlying the OBS are reported to be weak and friable and limit the extent of mining spans that can be developed;
- Two ore bodies are present which are considered to be wide (between 8m and 16m) and are separated by a parting of variable width (5m to 15m);
- Due to the width of the ore body, backfilling is an essential part of the mining strategy to increase overall recovery and protect against uncontrolled collapse of workings; and
- There is a limited amount of rock generated from waste development for use as backfill and additional sources of fill are needed

4.2.1.2 RAP Mining Method

RAP mining practised at KTO on OBS and OBI horizons, takes place in three phases:

- Development of drives, 6m wide by 5m high on 25m centres to create square pillars 19m wide and 5m high;
- Stripping of drives to a full width of 12.5m to create square pillars 112.5m wide and 5m high; and
- Benching of drives to the full height of the ore body to create square pillars 12.5m wide and up to 15m high.

Benching operations take place under a hanging wall that is supported in the first two stages of mining. Following benching, stopes should be filled to at least two thirds of the pillar height with waste rock or hydraulic fill or both, to provide support for pillars.

Pillars on the different mining horizons should be superimposed to avoid adverse stress concentrations on roadways. As they are first developed, pillars have high width-to-height ratios and high safety factors which provides a very stable layout. Following stripping of the drives, the width-to-height ratio and safety factor of the pillars both decrease significantly and instability can be expected. Benching reduces safety factors to much less than unity, and instability can be expected. It is essential that stripping and benching activities take place quickly before the onset of pillar deterioration. Filling is essential to provide lateral support to pillars and maintain strength by preventing scaling.

4.2.1.3 CAF Mining Methods including Post Pillar Cut and Fill ("PPCF")

CAF mining methods envisioned for KTO include conventional up-dip retreat together with a post-pillar method for areas in which the hanging-wall span or stope span exceeds 15m.

Where the dip ranges from 12º to 55º, preferred mining methods involve taking the ore body as a series of cuts, 5m in height, advancing up dip and placing fill consisting of waste rock, cyclone-classified tailings, cemented classified tailings, or a combination of waste rock and tailings fill, once stoping has been completed.

Because the horizontal width and exposed hanging wall spans of the two ore bodies may be considerable, particularly at shallow dip, two methods are considered:

- PPCF; and
- Longitudinal Cut and Fill ("CAF").

The choice of method in any area will depend on the horizontal width of the ore body. The methods are considered in detail for use in three mining areas at KTO:

- Etang North;
- Etang South; and
- Zone 1 Upper.

4.2.1.4 Sub-level Caving Mining Methods

To maximize the tonnage that can be recovered without using backfill, an additional mining method has been proposed for Zone 9.

General Considerations include:

- The practice of sub level caving is well established. Provided the appropriate mining practice is applied, the method will be applicable for OBS and OBI stopes alike;
- It is not expected that there will be rock-mechanic constraints to scheduling; and
- A potential benefit of this method lies in its ability to provide backfill to facilitate Zone 8 mining.

4.2.1.5 Backfill

Backfill is a critical component of the mining strategy that must be employed at KTO because it will:

- Provide a working platform in CAF-based mining systems; and
- Provide support to pillar sidewalls in RAP and PPCF operations.
- Reduce pillar sizes in RAP and PPCF mining; and
- Allowing full implementation of the RAP layout in flat-lying areas.

Extensive backfill will also help to provide regional support, thereby reducing stress on mining areas and facilitating safer and more efficient production. SRK considers that this benefit is of value to KTO given the uncertainties associated with the 1990 'Plateure' collapse.

Ventilation benefits achieved with backfilling are not considered in this report. Backfill waste material can be obtained from sources underground, waste rock from surface or cyclone or cemented tailings. An estimate of the backfill requirements is presented in the table below.

Table 40: Life of Mine Backfill Requirement

ZONE	% backfill	Backfill factor	Backfill solids (kt)
Z1 Btm OBI & OBS CAF	90	0.6	1 169
Z1 Top OBI & OBS CAF	90	0.6	1 358
Z2 CAF	90	0.6	1 022
Z3&4 OBS RAP	90	0.5	648
Z3&4 OBI LHRS	90	0.6	1 169
Z5 OBS RAP	90	0.5	201
Z5 OBI RAP	90	0.5	680
Z6 OBI CAF	90	0.6	53
Z7 SLC	90	0	0
Z8 OBI RAP	90	0.5	195
Z8 OBS RAP	90	0.5	119
Z9 OBS SLC	90	0	0
Z9 OBI SLC	90	0	0
ETANG CAF	90	0.6	83

4.2.1.6 Production Scheduling

The software used for the mine design and scheduling, namely Mine 2-4D, has the ability to optimise any given design by assigning priorities to different development and stoping areas, to assess the relative effect of changes in the mining sequence.

Capital development metres per annum are shown in the table below. The decision was that all main accesses (including inclines, declines and connecting crosscuts) and ventilation development (drives and ventilation shafts) were taken as capital development and the remainder (footwall drives, crosscuts and inter-level vent holes) as working-cost development.

Table 41: KTO LOM Production Schedule

KTO	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ore	kt	1 309	1 709	1 823	1 846	2 258	2 011	1 928	1 930	2 026	2 015
Cu grade	%	3.80	3.88	3.94	3.89	3.67	4.12	4.07	3.95	3.82	3.78
Co grade	%	0.49	0.57	0.58	0.57	0.57	0.57	0.57	0.59	0.54	0.52
Waste Dev.	km	5.9	5.5	4.7	3.7	3.7	3.2	3.2	3.0	3.0	2.8
Cu content	kt	50	66	72	72	83	83	78	76	77	76
Co content	kt	6	10	11	11	13	11	11	11	11	11

KTO	Unit	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Ore	kt	1 990	2 022	2 050	2 056	2 021	2 008	1 775	1 983	1 966	1 069	**37 795**
Cu grade	%	3.89	3.99	3.67	3.61	3.71	3.68	4.19	3.80	3.77	3.72	**3.85**
Co grade	%	0.51	0.55	0.57	0.55	0.62	0.53	0.49	0.46	0.50	0.49	**0.54**
Waste Dev.	km	2.8	2.9	2.7	2.4	2.3	2.2	2.2	2.0	1.5	0.8	**61**
Cu content	kt	77	81	75	74	75	74	74	75	74	40	**1 454**
Co content	kt	10	11	12	11	13	11	9	9	10	5	**206**

The KTO expansion plan considers the development required to ramp up to >2.0 million tonnes per annum and to sustain production at that level throughout the LOM for a period of 20 years. The ROM head grade remains relatively constant over the life of the operation of 37,8 million tonnes ROM at a 3.85% Cu head grade.

4.2.2 T-17 Underground Mine

T-17 Open Pit is an operational open pit with a current pit design to 1 300amsl for a maximum depth of 130m. An opportunity exists to develop an underground mine at T-17 to exploit the remaining classified resources directly below the planned pit design floor and through an access ramp developed from the open pit. The known resources are near vertical and extend approximately 200m below the planned pit design floor.

Current mine design and engineering is at a conceptual level of detail. Further work is required to establish the technical, practical and economic viability of the project before the remaining T-17 resources could be converted to reserves.

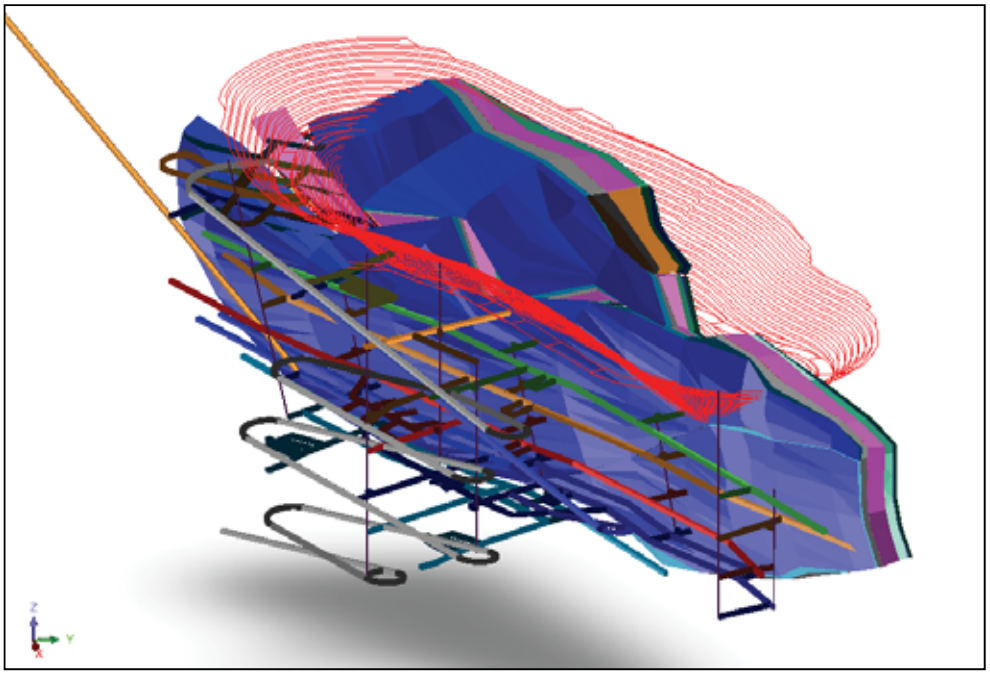

Figure 15: Conceptual Design of T-17 Underground

T-17 Underground will utilize transverse and longitudinal CAF mining methods. The transverse CAF mining method consists of the main access drive longitudinally developed to the orebody. From the main access drive, stope drives are developed perpendicular to the main access drive. The stope drive width in then increased to create stopes, leaving a pillar between adjacent stopes.

For the longitudinal CAF mining method, the stope drives are placed longitudinally in the centre of the ore body and slyped towards both the hanging wall and footwall contacts for the top and bottom levels. Once the top and bottom levels have been slyped, parallel long hole drilling is utilised to extract the portion of ore in between the levels. This mining method has a higher extraction ratio than the transverse CAF mining method.

The LOM schedule based on the conceptual mining plan is tabulated below.

Table 42: T-17 Underground LOM Production Schedule

T-17 Underground	Unit	2015	2016	2017	2018	2019	2020	2021	2022	2023
Ore	kt				697	872	1 307	1 307	1 337	1 337
Ore Dev.	km				1.3	1.6	2.4	2.4	2.5	2.5
Waste Dev.	km	1.0	2.0	2.5	2.5	2.5	2.5	2.5	2.0	1.5
Cu grade	%				2.7	2.7	2.7	2.7	2.64	2.64
Co grade	%				0.53	0.53	0.53	0.53	0.62	0.62
Cu content	kt				19	24	35	35	35	35
Co content	kt				4	5	7	7	8	8

T-17 Underground	Unit	2024	2025	2026	2027	2028	2029	2030	Total
Ore	kt	1 337	1 412	1 412	1 220	774	516	206	**13 734**
Ore Dev.	km	2.5	2.6	2.6	2.3	1.4	1.0	0.4	**25.5**
Waste Dev.	km	1.0	1.0	1.0	0.5	0.5	0.5	0.3	**23.8**
Cu grade	%	2.64	2.5	2.5	2.41	2.28	2.28	2.28	**2.57**
Co grade	%	0.62	0.75	0.75	0.86	1.03	1.03	1.03	**0.69**
Cu content	kt	35	35	35	29	18	12	5	**353**
Co content	kt	8	11	11	11	8	5	2	**94**

An average ROM head grade of 2.6% Cu is achieved over the LOM.

Additional technical work is required to covert the T-17 Underground resources to reserves. The conceptual access designs created are reasonable in principle and the mining methodology is similar to existing mining methods at KTO. Mining related modifying factors were derived from the actual mining method efficiencies experienced at KTO.

4.2.3 Kamoto East Underground Mine ("KTE")

The mining method proposed for implementation at KTE is SLC as this mining method is well suited for the extraction of the steep dipping portion of the ore body being targeted by KTE. The key advantages of the SLC mining method is a rapid production ramp up due to the large number of loading points being created, a low intensity support requirement and a high percentage extraction of the ore body.

A 30m crown pillar is left between KOV Open Pit and KTE. The planned underground operations deliver a ROM head grade of 4.44% Cu for a total of 20.5 million tonnes of ROM ore from 2019 to 2030. The peak production rate from underground operations is 2.4 million tonnes ore per annum from 2028 to 2030.

The LOM schedule based on the conceptual mining plan is tabulated below.

Table 43: KTE LOM Production Schedule

KTE	Unit	2016	2017	2018	2019	2020	2021	2022	2023
Ore	kt				257	515	772	1 218	1 636
Ore Dev.	km				0.9	1.5	2.3	2.9	3.8
Waste Dev.	km	0.6	3.0	4.0	4.5	4.5	4.5	5.0	5.0
Cu grade	%				4.57	4.57	4.57	4.54	4.53
Co grade	%				0.28	0.27	0.27	0.25	0.24
Cu content	kt				12	24	35	55	74
Co content	kt				1	1	2	3	4

KTE	Unit	2024	2025	2026	2027	2028	2029	2030	Total
Ore	kt	2 130	2 130	2 260	2 369	2 429	2 406	2 406	**20 528**
Ore Dev.	km	4.8	4.8	4.2	4.4	3.6	3.6	1.4	**38**
Waste Dev.	km	4.0	3.0	2.6	1.5	1.0	0.5	0.2	**44**
Cu grade	%	4.53	4.53	4.32	4.32	4.36	4.40	4.40	**4.44**
Co grade	%	0.24	0.24	0.24	0.24	0.23	0.21	0.24	**0.24**
Cu content	kt	97	97	98	102	106	106	106	**912**
Co content	kt	5	5	5	6	6	5	6	**49**

An average ROM head grade of 4.4% Cu is achieved over the LOM

The access development to KTE is illustrated in the figure below.

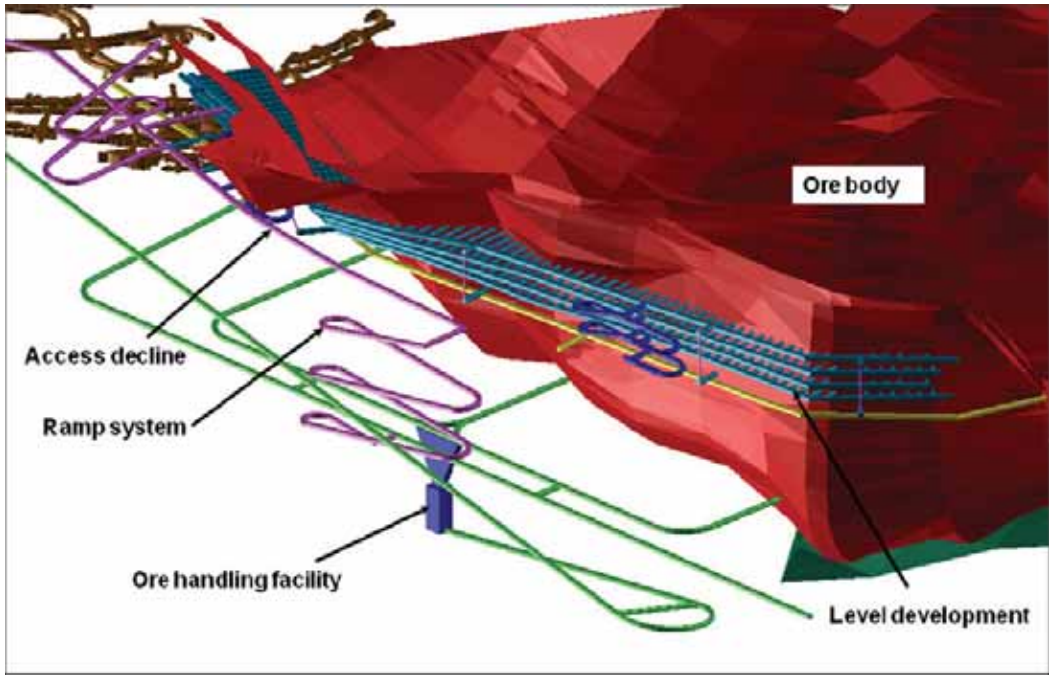

Figure 16: KTE Conceptual Development Layout

4.2.4 Underground Mining Mineral Reserve Estimate

The updated mineral reserve estimate is based on the mining methods described in the sections above and is compliant with JORC. The entire resource area was sub-divided into smaller portions per zone to aid the mine design and schedule process. The basis of conversion from resource to reserve will be that measured resources will convert to proven reserves and indicated resources to probable reserves.

The reserve estimate is based on the 2008 SRK feasibility study and updated based on the actual production performance achieved in 2008, 2009 and 2010.

Table 44: Underground Mining Mineral Reserve Estimate as at 31 December 2010

Mining operation	Proved			Probable		
	Tonnes (*000)	% T Cu	% T Co	Tonnes (*000)	% T Cu	% T Co
KTO	14 589	3.47	0.51	19 400	3.70	0.53

4.3 Surface Mining Operations and Projects

The reserve estimations for surface mining assets included in the MER are based on LOM plans created from first principles. The first section below outlines the process followed.

4.3.1 LOM Planning Process

The processes involved in LOM planning for surface mining operations can be summarised as follows:

- Selective Mining Unit (“SMU”) selection;
- Pit optimisation;
- Pit design;

- Scheduling unit selection and design;
- Production planning.

A brief description of each step is given below. For this MER, the open pits considered for the LOM plan and reserve estimation process are T-17 Open Pit, KOV Open Pit and Mashamba East Open Pit.

4.3.1.1 SMU Model / Mining Model

The SMU is defined as the smallest volumetric unit that can be mined as a complete unit. The outcome of the SMU selection process is to determine an appropriate SMU that enables an informed decision on a modelling strategy that most realistically estimates actual practice and that lowers the overall mining risk. It is important to note that:

- SMU selection considers more than the selected equipment fleet; and
- Cut-off grades should be applied on an SMU basis and not on a geological block model or blast block basis.

Factors considered in determining a realistic SMU include:

- Mining equipment;
- Structural complexity of the ore body in terms of dip, thickness and structural continuity;
- Ore block continuity and the way it was modelled;
- Mining rate;
- Degree of continuity above the cut-off grade; and
- Mining strategy, consisting of blending (in-pit blending versus stockpile blending) and product requirements.

This process is usually an iterative process that includes resource block model re-blocking for a number of different SMU's. It is important to note that the SMU can vary per pit at a single operation, based on the defined SMU drivers. Although the purpose of the SMU is not to determine dilutions and losses, it does support the appropriate modelling of dilutions and losses, based on the dips and structure of the ore. Outcomes of the SMU selection process should include:

- SMU models and cut-off grade strategy;
- Initial indication on mining losses and dilutions; and
- Scheduling and blending approach.

SMU's applied to the various resource block models for KCC's surface mining operations are tabled below.

Table 45: Selected SMU Dimensions per Open Pit

Mining Operation	Unit	SMU
T-17 Open Pit	m	5 x 5 x 5
Mashamba East Open Pit	m	10 x 10 x 5
KOV Open Pit	m	10 x 10 x 5

Dilution

Dilution is defined as the waste material intentionally included during mining block modelling to the site specific mineral resources in order to make it practically mineable. The methodology applied in determining the dilution is as follows:

On the ore contacts (where the resource block consists of a percentage ore material and a percentage waste material) the tonnage and grade of the reserve block is defined as the weighted average tonnage and grade of the materials contained in the original resource block;

In cases where the total resource block is ore, the corresponding reserve block is defined as a 100% ROM block with the same grade attributes as the blocks.

Mining loss

Mining loss is defined as reported mineral resources which are contained in SMU's that are not defined as mineral reserve type blocks.

The methodology in determining mining loss is as follows:

Mining loss is addressed through the application of a copper cut-off to the diluted ore material.

The ore blocks that originally had a high percentage of ore will normally fall above the cut-off grade while ore blocks that originally had a low percentage of ore will fall below the cut-off.

Dilution and mining loss curves on a diluted SMU cut-off grade basis were produced for each of the pits and detailed later in this report.

4.3.1.2 Pit Optimisation

One of the outputs of the pit optimisation process is to determine the position and extent of the final pit boundary. The GEMCOM Whittle pit optimisation software ("Whittle") is employed for this purpose.

Whittle uses the Lerchs-Grossmann algorithm to determine the optimal shape for an open pit in three dimensions. The method is applied to a block model of the ore body, and progressively constructs lists of related blocks that should, or should not, be mined. The final lists define a pit outline that has the highest total relative value, subject to the required pit slopes. This outline includes every block that "adds value" when waste stripping is taken into account and excludes every block that "destroys value". It takes into account all revenues and costs as well as mining and processing parameters.

Although a detail description of the Whittle methodology is beyond the scope of this report, the following provides a brief summary. The optimisation process can be divided into two processes:

- Creation of a range of nested pit shells of increasing sizes. This is done by varying the product price and generating a pit shell at each price point;
- Selection of the optimal pit shell. This is achieved by generating various production schedules for each pit shell and calculating the net present value for each schedule. The output of this process is a series of "pit-versus-value" curves.

4.3.1.3 Pit Design

The mining method applied is conventional open pit mining, consisting of drilling, blasting, loading and hauling.

A pit design is undertaken once an optimal pit shell has been selected. The pit design process considers:

- Safe operations;
- Continuous access to individual blocks and the working benches;

- Equipment units and movement requirements;
- Geotechnical recommendations;
- Water handling;
- Backfill opportunities; and
- The phasing of operations or pre-stripping.

Design work was performed in GEMCOM Surpac mine planning software ("Surpac"). The selected optimum pit shell was used as the design limit for KOV Open Pit and Mashamba East Open Pit with all the input parameters incorporated to create a three dimensional pit design. The pit design is used to evaluate the tonnage and grades of the different ore types.

Pit designs were created based on the current mining methodology that includes mining at 5m or 10m benches. Ramp and pit access designs considered the largest expected haul truck dimension and specifications, ensuring safe and practical execution

4.3.1.4 Scheduling Units

Block designs are conducted based on typical blast block or practical bench and production block dimensions. Ramps are designed and scheduled separately at appropriate rates. The block designs simulate the scheduling units. Each block could contain a range of material types that could be selectively loaded to separate locations (ROM stockpile, various stockpiles or waste dumps etc.).

4.3.1.5 Production Scheduling

Schedules were produced in RUNGE Xpac and consider the available pit space, number and size of excavators required and the practical constraints of each pit.

4.3.2 T-17 Open Pit

T-17 Open Pit is approaching depletion and surface mining will conclude within the current open pit economic boundaries during 2012. A total of 2.0 million ROM tonnes at 2.53% Cu was produced during the 2010 calendar year. A cut-off grade of 0.6%Cu is applied and a mining dilution of 10% is achieved with mining losses estimated at 30%. The production plan is to achieve a total of 1.5 million tonnes of ROM oxide ore during 2011 and 2012 at an average head grade of 2.7% Cu.

This section of the report only considers T-17 Open Pit within the approved pit design.

4.3.2.1 Modifying Factors

A total of 5% geological losses have been applied. This implies that 5% of the material modelled as ore are mined as waste due to structural resource losses. This is a tonnage loss that does not impact the ROM head grade.

Dilution and losses are applied on an SMU basis. Due to the low production requirement and small loading and hauling units active in the T-17 Open Pit, a SMU unit of 5mx5mx5m was selected. The figure below is a tonnage and grade profile that illustrates the undiluted resource portion (green) with the dilution portion (brown) in a cumulative area profile. The effect of the dilutions can be seen in the difference between the diluted ROM Cu % (black) head grade line profile and the undiluted resource grade line profile in green.

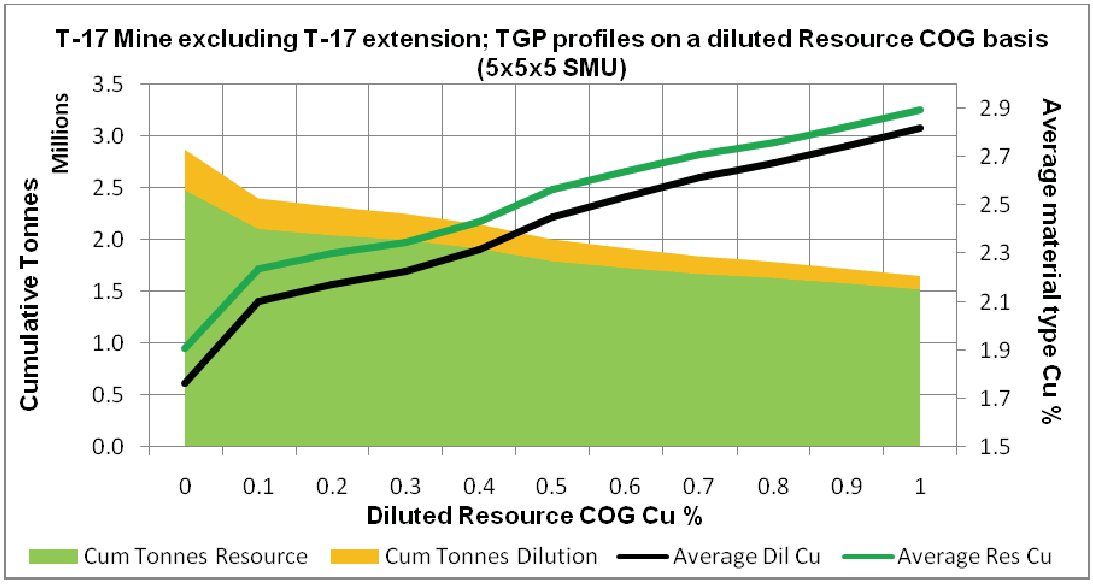

Figure 17: T-17 Open Pit Diluted Resource Tonnage and Grade Profile

At a cut-off grade of 0.6%Cu, losses of material below the SMU cut-off grade are expected at 30% while mining dilutions allowed for are 10% on average as seen from the figure below.

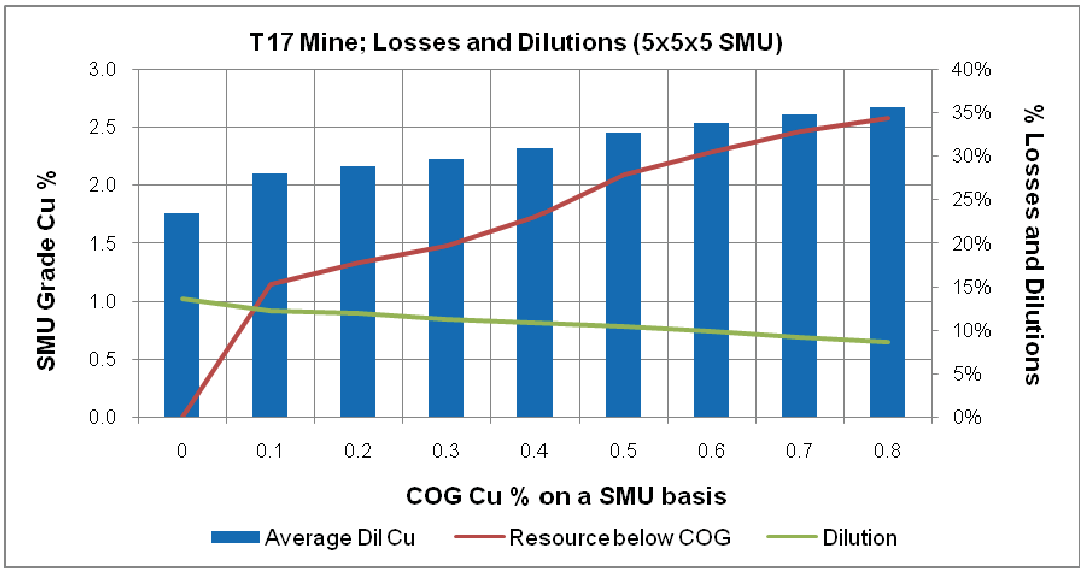

Figure 18: T-17 Open Pit In-pit Losses and Dilutions

4.3.2.2 Pit Optimisation

Due to the proximity of the current mining faces to the final pit design, no pit optimisation was conducted for the T-17 Open Pit.

4.3.2.3 Pit Design

The T-17 Open Pit is a well-managed operation nearing depletion. The figure below is a view in a eastern direction from the lookout point. The depletion of this pit entails cutting the 10m benches to 5m on the ore interface and overall deepening of the pit without any pushbacks required.

Figure 19: T-17 Open Pit

The current pit design used as basis for the LOM plan and reserve estimate is shown below. The final pit depth is 130m to an elevation of 1 300amsl.

Figure 20: T-17 Open Pit Final Design

The pit design criteria are based on current practice and are tabulated below.

Table 46: T-17 Open Pit Design Criteria

Pit Design Criteria	Unit	T-17 Open Pit
Bench height	m	5.0
Berm width	m	4.3
Batter angle	Degrees	78.0
Ramp width	m	16.0
Ramp gradient	Degrees	5.0 (1 in 12)

The total tonnes contained in the pit design with stripping ratio on a tonnes basis are tabulated below.

Table 47: Ore and Waste Contained in the T-17 Open Pit

Parameter	Unit	T-17 Open Pit
Ore	kt	1 474
Waste	kt	2 555
Total	kt	4 025
Stripping Ratio	t/t	1.7
Cut cut-off grade	%Cu	0.6

4.3.2.4 Production Scheduling

Production from the T-17 Open Pit is planned at 1.1 million tonnes per annum ("mtpa") in 2011 which reduces in 2012 due to depletion. The LOM production profile is tabulated below.

Table 48: T-17 Open Pit LOM Production Profile (excl. East Extension)

Year	Unit	2011	2012	Total
Ore	kt	1 100	370	**1 470**
Waste	kt	2 261	295	**2 555**
Cu grade	%	2.57	2.93	**2.66**
Co grade	%	0.46	0.44	**0.45**
Cu content	kt	28	11	**39**
Co content	kt	5	1.7	**6**

Ore from the T-17 Open Pit is exclusively oxide ore and is converted to the probable mineral reserve category.

4.3.3 KOV Open Pit

KOV Open Pit is a recently dormant pit that is currently in the final stages of dewatering and in the production ramp up phase. A total of 0.7million ROM tonnes at 4.21% Cu were produced from KOV Open Pit in 2010. Mining related modifying factors include 1% mining losses below a cut of grade of 0.6% Cu and mining dilutions of 9%. KOV Open pit will produce a ROM head grade of 4.14% Cu for a total of 83.2 million tonnes of ROM ore up to the year 2030. Ore production from the KOV Open Pit is primarily oxide material at 78% on average.

4.3.3.1 Modifying Factors

As with the T-17 Open Pit, a total of 5% geological losses have been applied.

Dilution and losses are applied on an SMU basis. Due to the high production requirement and the size of the loading and hauling units active in the KOV Open Pit, a SMU unit of 10mx10mx5m was selected. The figure below is a tonnage and grade profile that illustrates the undiluted resource portion (green) with the dilution portion (brown) in a cumulative area profile. The effect of the dilutions can be seen in the difference between the diluted ROM Cu % (black) head grade line profile and the undiluted resource grade line profile in green.

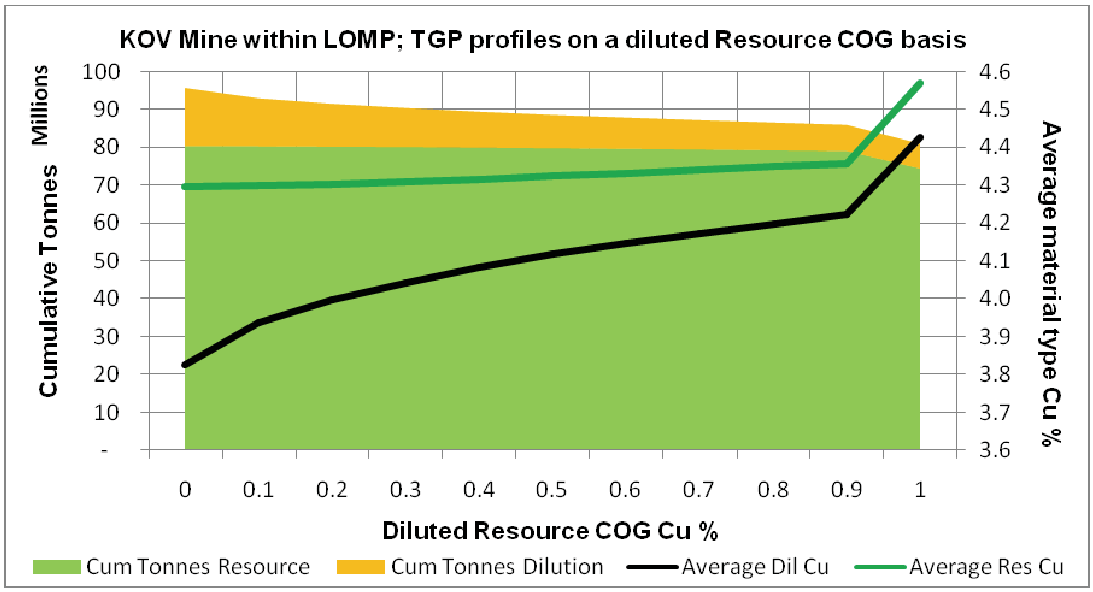

Figure 21: KOV Open Pit Diluted Resource Tonnage and Grade Profile

A cut-off grade of 0.6% Cu was applied at KOV Open Pit. The basis of the cut-off grade calculation is to determine the break even cost based on selling, processing and royalty cost. The cut-off grade considers revenues generated from copper and cobalt with the appropriate processing recoveries applied. A total of 1% resource losses of material below the SMU cut-off grade are estimated while mining dilutions are 9% on average.

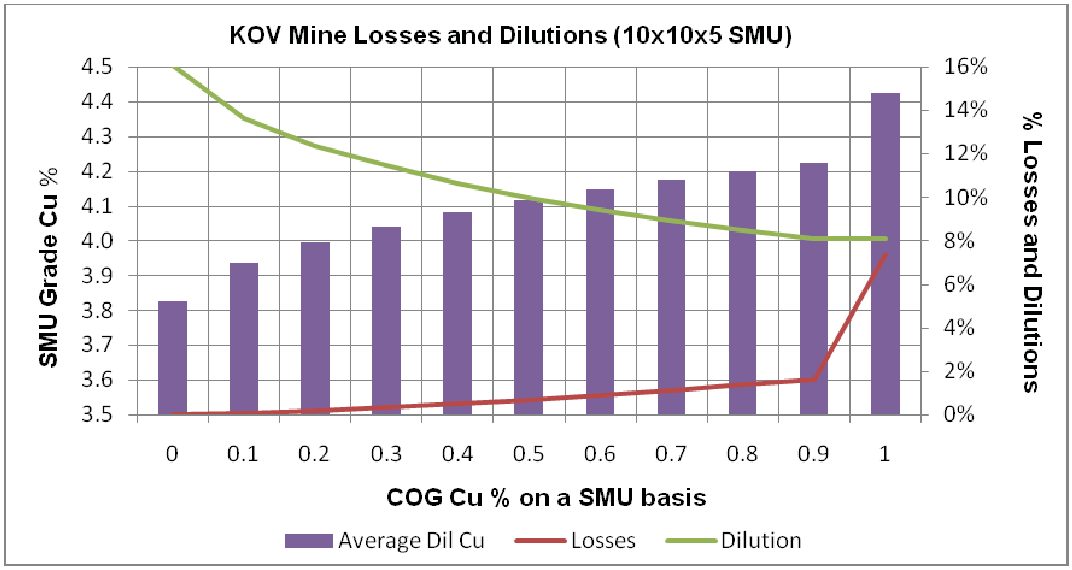

Figure 22: KOV Open Pit In-Pit Losses and |Dilutions

4.3.3.2 Pit Design

The current pit is active and in the final stages of dewatering. The overall operational face angle allowed for in the production plan should allow access on multiple levels and minimise the risk of large slope failures. The final slope angles used for the pit design process assume lower final slope angles to the north of the pit. The figure below is viewed in a northern direction from the lookout point.

Figure 23: KOV Open Pit

The current open pit Cut 1 and Cut 2 design (for production through to 2020) was used as the basis for the further development of KOV Open Pit with the addition of Cut 3 and Cut 4 based on the optimised pit shell for the LOM plan. A graphical representation of the final pit design with current topography is shown in the figure below with the current Cut 1 and Cut 2 pit designs shown in blue.

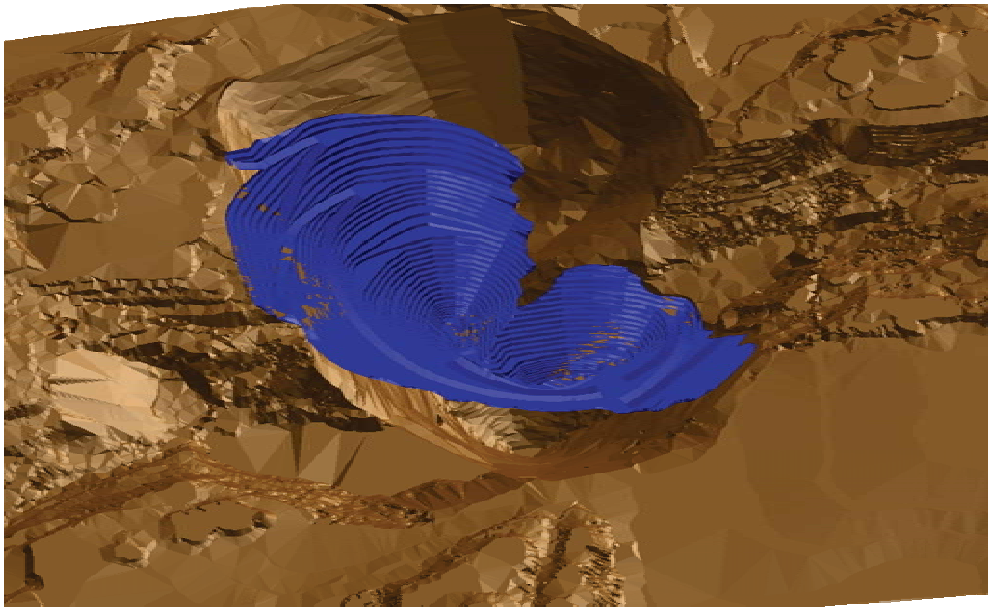

Figure 24: KOV Open Pit Design (Cut 1 and Cut 2)

The pit design criteria are based on current practice and are tabulated below.

Table 49: KOV Open Pit Design Criteria

Pit Design Criteria	Unit	KOV Open Pit
Bench height (< depth:335m)	m	10.0
Bench height (> depth:335m)	m	5.0
Berm width (10m benches)	m	13.5
Berm width (5m benches)	m	4.0
Batter angle (10m benches)	Degrees	75.0
Batter angle (5m benches)	Degrees	66.0
Ramp width	m	35.0
Ramp gradient	Degrees	5.7 (1 in 10)

KOV Open Pit Design Criteria

The total tonnes contained in the pit design with stripping ratio on a tonnes basis are tabulated below.

Table 50: Ore and Waste Contained in KOV Open Pit

Parameter	Unit	KOV Open Pit
Ore	kt	83 114
Waste	kt	463 350
Total	kt	546 464
Stripping Ratio	t/t	5.6
Cu cut-off grade	% Cu	0.6

Ore and Waste Contained in KOV Open Pit

4.3.3.3 Production Scheduling

Production from the KOV Open Pit is planned at up to 6.1mtpa ore based on the available pit space and to maintain the KCC overall recovered copper profile at 310 000 tonnes per annum copper.

Table 51: KOV Open Pit LOM Production Profile

KOV Open Pit	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ore	kt	1 517	2 365	3 337	5 165	6 177	4 948	5 020	4 633	4 322	3 764
Waste	kt	22 483	42 635	41 663	39 835	34 362	37 052	36 980	30 367	28 918	31 236
Cu grade	%	4.81	5.02	5.11	4.21	3.81	4.76	4.69	4.82	4.63	4.69
Co grade	%	0.38	0.39	0.35	0.22	0.15	0.30	0.40	0.34	0.36	0.45
Cu content	kt	73	119	171	218	235	235	235	224	200	176
Co content	kt	6	9	12	11	9	15	20	16	16	17

KOV Open Pit	Unit	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Ore	kt	3 031	3 736	4 433	4 334	4 633	4 926	5 339	5 073	3 335	3 062	**83 151**
Waste	kt	31 969	31 264	25 567	17221	5 070	2 208	1 366	627	482	509	**461 813**
Cu grade	%	5.43	4.41	3.58	3.56	3.30	3.10	2.86	3.01	4.59	4.97	**4.14**
Co grade	%	0.45	0.63	0.56	0.50	0.56	0.51	0.46	0.43	0.37	0.32	**0.40**
Cu content	klt	165	165	159	154	153	153	153	153	153	152	**3 445**
Co content	kt	14	24	25	22	26	25	24	22	12	10	**333**

A material portion of the ROM tonnes generated throughout the LOM plan is from the Inferred Resource category and cannot be converted to reserves.

4.3.4 Mashamba East Open Pit

Mashamba East Open Pit is a dormant pit that requires dewatering. This pit is included in the LOM plan to supplement the lower recovered copper production from KOV Open Pit from 2018 onwards. A total ROM production of 12.8 million tonnes at 2.8% Cu is planned at a maximum production rate of 2.5 million tonnes per year. Mining related modifying factors applied include 9% dilution. Due to the high portion of low grade material in this pit, the mining losses below the applied cut-off grade of 0.6% Cu are as high as 39% of the resource. Mashamba East Open Pit produces only oxide ore.

4.3.4.1 Modifying Factors

As with T-17 and KOV Open Pits, a total of 5% geological losses have been applied.

Dilution and losses are applied on an SMU basis. Due to the high production requirement and size of the loading and hauling units active in the Mashamba East Open Pit, a SMU unit of 10mx10mx5m was selected. The figure below is a tonnage and grade profile that illustrates the undiluted resource portion (green) with the dilution portion (brown) in a cumulative area profile. The effect of the dilutions can be seen in the difference between the diluted ROM Cu % (black) head grade line profile and the undiluted resource grade line profile in green.

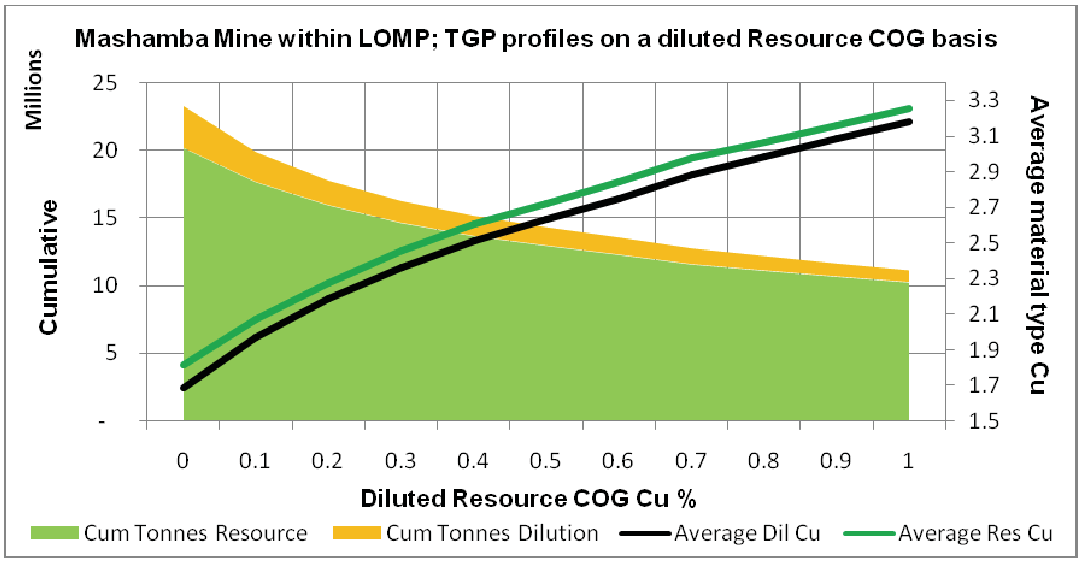

Figure 25: Mashamba East Open Pit Diluted Resource Tonnage and Grade Profile

As previously indicated, a cut-off grade of 0.6% Cu was applied at the Mashamba East Open Pit. A total of 39% resource losses of material below the SMU cut-off grade are estimated due to the high sensitivity of material at low Cu grades. An average of 9% additional tonnes are applied as dilution as seen from the figure below.

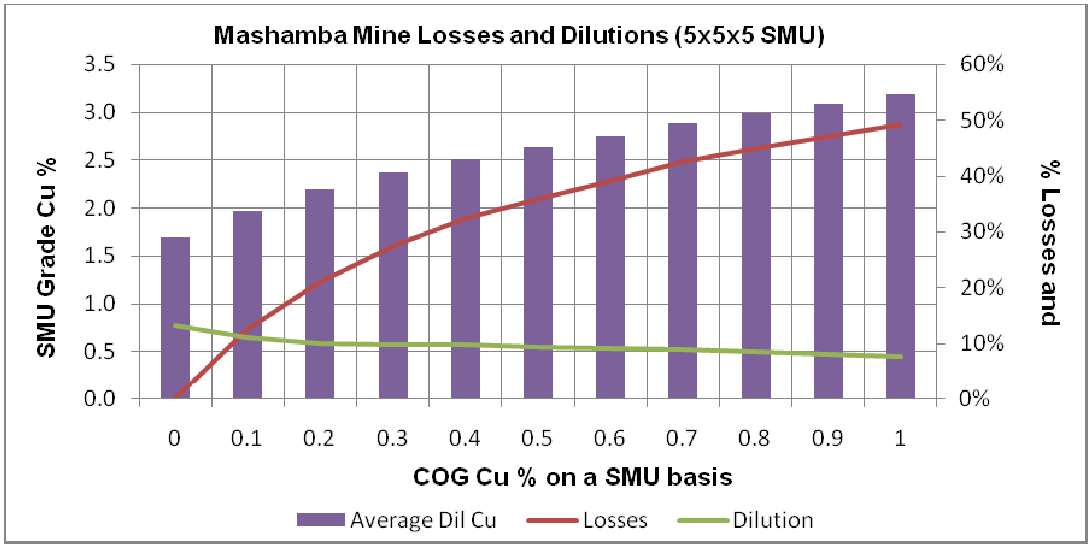

Figure 26: Mashamba East Open Pit In-Pit Losses and Dilutions

4.3.4.2 Pit Design

The current pit survey of this dormant operation and optimised pit shell was used as the basis of the pit design. A graphical representation of the final pit design with current topography is shown in the figure below.

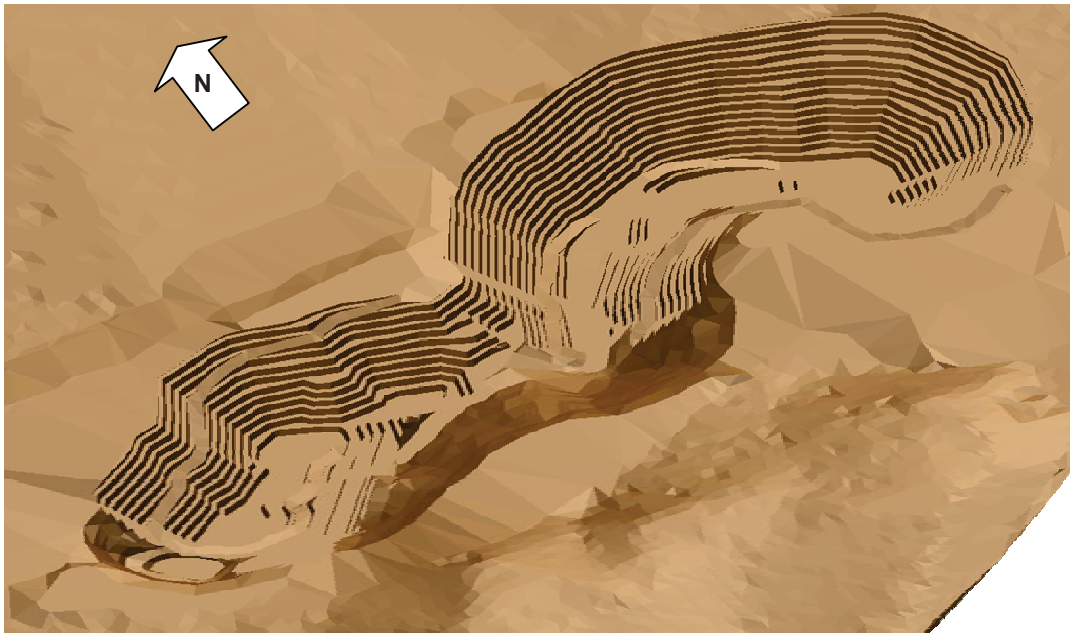

Figure 27: Mashamba East Open Pit Design

Mashamba East Open Pit design criteria are tabulated below.

Table 52: Mashamba East Open Pit Design Criteria

Pit Design Criteria	Unit	Mashamba East
Bench height	m	10.0
Berm width	m	8.0
Batter angle	Degrees	65.0
Ramp width	m	25.0
Ramp gradient	Degrees	5.2 (1 in 11)

The total tonnes contained in the pit design with stripping ratio on a tonnes basis are tabulated below.

Table 53: Ore and Waste Contained in Mashamba East Open Pit

Parameter	Unit	Mashamba East Open Pit
Ore	kt	12 797
Waste	kt	89 378
Total	kt	102,175
Stripping Ratio	t/t	7.0
Cu cut-off grade	%	0.6

4.3.4.3 Production Scheduling

Production from the Mashamba East Open Pit is planned at a maximum of 2.5mtpa. The LOM production profile is tabulated below.

Table 54: Mashamba East Open Pit LOM Production Profile

Mashamba East Open Pit	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ore	kt	-	-	-	-	995	916	2 524	1 991	1 704	2 027
Waste	kt	-	-	-	-	14 005	14 084	12 476	13 009	13 296	12 973
Cu grade	%	-	-	-	-	4.14	4.50	1.82	2.07	2.76	2.38
Co grade	%	-	-	-	-	0.10	0.19	0.29	0.49	0.43	0.30

Mashamba East Open Pit	Unit	2021	2022	2023	2024	Total
Ore	kt	1 528	670	402	42	**12 797**
Waste	kt	4 472	4 907	144	11	**89 378**
Cu grade	%	3.02	3.42	4.10	4.62	**2.75**
Co grade	%	0.41	0.36	0.37	0.29	**0.34**

A material portion of the ROM tonnes generated throughout the LOM plan is from the Inferred Resource category and cannot be converted to reserves.

4.3.5 Reserve Statement

The reserve estimate of the surface mining operations is based on pit optimisations, pit designs and production schedules generated with a 31 December 2010 base date.

Table 55: Surface Mining Mineral Reserve Estimate as at 31 December 2010

Surface Mining Operation	Proved			Probable		
	Tonnes (*000)	% T Cu	% T Co	Tonnes (*000)	% T Cu	% T Co
T-17 Open Pit				1 470	2.61	0.46
Mashamba East Open Pit				5 914	3.00	0.37
KOV Open Pit				55 666	4.73	0.45
Total				**63 050**	**4.52**	**0.44**

The KOV Open Pit reserve estimate as at 31 December 2009 was declared at 90 million tonnes at 4.9% Cu. The variance with this MER is due to an updated optimisation of the pit design using differing technical and economic data which has resulted in the development of a smaller more optimal pit without sterilisation of any resource.

4.4 Mining Risks

4.4.1 KTO Mine

The high levels of development required for the production ramp up, poses a risk to the achievement of the LOM profile. Any delay in the development requirements would result in a delayed ramp up profile from the KTO section.

4.4.2 T-17 Underground and KTE Mine

Although both the T-17 Underground and KTE mines are included in the LOM plan, additional work is required to convert the ROM tonnes from resource to reserve. The access and mining strategies on which the LOM plan is based for both of these underground mining projects are developed and operational at KTO while mining related modifying factors are based on actual efficiencies at KTO. The risk could be mitigated by a comprehensive engineering and design study.

4.4.3 Surface Operations

- Dewatering: Initial and continuous dewatering of the KOV Open Pit and Mashamba East Open Pit is required. The current dewatering strategy has recently been revised to accommodate the pit designs referenced above and historical hydrogeological data which is difficult to validate. As such, the current dewatering strategy could potentially prove to be not as effective as designed in order to maintain dry slope conditions. This potentially could introduce risks associated with the economics of the pit, pit stability and the production schedule. This risk is being mitigated by conducting further studies to gain a better understanding of the hydrogeology so that an appropriate dewatering strategy is defined that enables safe mining as cost effectively and efficiently as possible.

- Access and slope failures: KOV Open Pit will develop into a large operation up to 400m deep. Production rates are high with up to 50 million tonnes of material scheduled to be moved from the pit per annum. Small slope failures could have a negative impact on access to the production benches. A strategy should be developed to establish an alternative ramp access to production areas. This is a not an unknown risk and is monitored by on site personnel on a continual basis. Dual access to working areas could be established to decrease the risk of production losses.

- Available pit space: A high production rate requires sufficient working areas or face length. Additional face length should be established and maintained on the southern section of the KOV Open Pit.
- Available waste dumping space: The KOV Open Pit produces 462 million tonnes of waste up to 2030. The available waste dumping space close to the KOV Open Pit is insufficient. However, additional surface rights have been allocated to KCC to the north of the current KOV Open Pit concession as detailed in the Amended Joint Venture Agreement. For improved cost efficiency, a detailed technical plan to back fill mining waste into depleted pits is also being developed. With the appropriate mining sequence in KOV Open Pit, a total of 150 million tonnes could be back filled while the T-17 Open Pit is available for back filling from 2013 onwards should the appropriate technical studies be completed.
- Grade control: An operational cut-off grade of 0.6% Cu has been applied to the mining models. Grade control practices for a high volume operation should be developed. Inefficient grade control systems could result in resource losses or alternatively the uneconomic processing of ore production where the planned revenues do not cover the processing and selling costs.

5.0 PLANT AND EQUIPMENT

5.1 General Process Commentary

The Kamoto Concentrator ("KTC") and the Luilu Refinery constitute the process plants of KCC with KTC being approximately 4km from Kolwezi and the Luilu Refinery being 6 km distance from KTC.

KCC process plants produce copper cathode metal, cobalt metal and copper concentrate as products from ores received from KOV Open Pit, T-17 Open Pit and the KTO mine. Future production may be derived from Mashamba East Open Pit and potentially T-17 Underground and KTE mine. As detailed in the Section 3.0, ores sourced from the open pits are predominantly oxide, disseminated with up to 35% sulphide mineralization in certain locations and depths within the pits and this has the potential to produce a mixed ore feed to KTC. Ore sourced from KTO is almost exclusively sulphide.

The metallurgical processing is divided into two areas, namely crushing, milling and flotation at KTC and copper and cobalt metal recovery through a leach and electro winning process at the Luilu Refinery.

The value of the plant and equipment has been taken into account in the economic evaluation as set out in Section 10.0.

5.2 Processing Facilities

5.2.1 Kamoto Concentrator

The original Kamoto concentrator consists of Kamoto 1 and 2 sections built in 1968 and 1972 respectively and DIMA 1 and 2 sections built in 1981 and 1982 respectively.

Kamoto 1 treated mixed ore and oxides. The circuit comprised the following unit processes:

- autogenous milling operating in closed circuit with hydro cyclones;
- sulphide flotation including roughing, cleaning and middlings regrind to produce a sulphide concentrate;
- sulphidisation of oxide minerals; and
- oxide flotation including roughing and cleaning to produce an oxide concentrate.

Kamoto 2 primarily treated sulphide ore from the KTO mine. The circuit comprised the following unit processes:

- autogenous milling operating in closed circuit with hydro cyclones; and
- sulphide flotation including roughing, cleaning and middlings regrind.

The DIMA 1 circuit primarily treated oxides and mixed oxide / sulphide ore feeds. The circuit comprised the following unit processes:

- primary autogenous milling and secondary ball milling operating in closed circuit with hydro cyclones;
- sulphide flotation including roughing, cleaning, re-cleaning and middlings re-grind to produce a sulphide concentrate;
- sulphidisation of oxide minerals; and
- oxide flotation including roughing and cleaning to produce an oxide concentrate.

The DIMA 2 circuit treated oxide ore. The circuit comprised the following unit processes:

- primary autogenous milling and secondary ball milling operating in closed circuit with hydro cyclones;
- sulphidisation of oxide minerals; and
- oxide flotation including roughing and cleaning to produce an oxide concentrate.

5.2.2 Luilu Refinery

Production at the Luilu Refinery, located approximately 6 km north of KTC, commenced in 1960. The process route employed was roast leach-electro-winning typical of other contemporary DRC and Zambian Copperbelt operations. The circuit comprised the following unit processes:

- sulphide and oxide concentrate receipt, dewatering and storage;
- sulphide concentrate roasting;
- sulphuric acid copper leach of roaster calcine and oxide concentrate (oxidising leach assisted by air injection);
- secondary leach using high acid-consuming (dolomitic) concentrates;
- counter-current decantation and clarification;
- leach tailings filtration and residual sulphide flotation;
- tailings neutralisation and disposal;
- selenium removal via up-flow reactor containing copper granules;
- copper electro-winning onto copper starter sheets (being converted to stainless steel blanks);
- de-copperising of cobalt bleed solution – two-stage electro-winning;
- cobalt bleed solution purification including the following steps;
- iron removal by controlled pH precipitation using milk of lime;
- copper removal by two-stage controlled pH precipitation using milk of lime;

- nickel removal by controlled pH precipitation using sodium hydrogen sulphide ("NaHS") and cobalt chips;
- zinc removal by the addition of hydrogen sulphide ("H_2S") and neutralisation with sodium carbonate solution;
- controlled pH precipitation of cobalt with milk of lime;
- cobalt re-leaching with spent electrolyte and sulphuric acid under controlled pH;
- cobalt electro-winning; and
- cobalt vacuum degassing and burnishing.

The Luilu Refinery was designed to process sulphide and oxide concentrates with an initial capacity of 80 ktpa copper cathode. During the 1970's, capacity was expanded to 175 ktpa copper cathode and 8 ktpa cobalt cathode. The grade of cathode copper produced in the first electro-winning stage never met LME Grade 'A' quality, while most of the cathode and copper sponge produced in the secondary electro-winning was not of commercial quality and was recycled to the Shituru smelter at Likasi. Cobalt recovery across the plant was <65%, with the majority of the cobalt losses occurring at nickel and zinc sulphide precipitation with some also at iron removal and cobalt precipitation.

The condition of the plant in 2004, when taken over, was extremely poor and almost totally run down. A progressive renewal programme was planned, to match the increasing throughput. Considerable progress has been made to-date in the phased rehabilitation exercise. Completion of Phase 1 was December 2007 and completion of Phase 2 December 2009. The new roaster was commissioned in late 2009.

Phase 3 for which SNC-Lavalin (South Africa) are undertaking the engineering and procurement services will essentially complete the rehabilitation of KTC and the Luilu Refinery. A process simulation model has been developed, which indicates that Phase 3 of the KTC and Luilu Refinery will produce 150 ktpa of copper and 8 ktpa of cobalt.

Further production increases above the capacity of 150 ktpa copper and 8 ktpa cobalt have been assessed by a scoping study completed in July 2010. The study compared alternatives for increasing copper output to 270 ktpa or 310 ktpa.

A front end engineering and early works project is currently in progress. The design output will be 270 ktpa or 310 ktpa of copper and 8000 ktpa of cobalt metal with the additional cobalt sold as cobalt hydroxide.

5.3 The Kamoto Concentrator

A block flow diagram of the current KTC operation is shown in Figure 28.

5.3.1 Ore Reception and Crushing

Feed is received from three main sources; KTO, the T17 open pit and the KOV Open Pit.

5.3.2 Milling

5.3.2.1 Oxide Ore Milling

Oxide ore from KOV Open Pit and T-17 Open Pit is transported by truck and stockpiled near the B3 jaw crusher at KTC. The B3 crusher has a nameplate capacity of 500 tph. Oxide ore is blended, crushed to minus 400 mm and conveyed to stockpiles. Ore is milled in two 28' cascade mills with nameplate capacities of 150 tph each and one 32' cascade mill with a nameplate capacity of 350 tph, all in closed circuit with cyclones. Cyclone underflow is milled in ball mills. Final milled product is nominally 70 to 75% minus 75µm.

5.3.2.2 Sulphide Ore Milling

Sulphide ore from KTO is crushed underground by gyratory crushing to minus 400 mm and hoisted to surface. From there it is conveyed to stockpiles ahead of KTC. The ore is milled in two 28' cascade mills with a nameplate capacity of 150 tph each in closed circuit with cyclones to 90% minus 75µm.

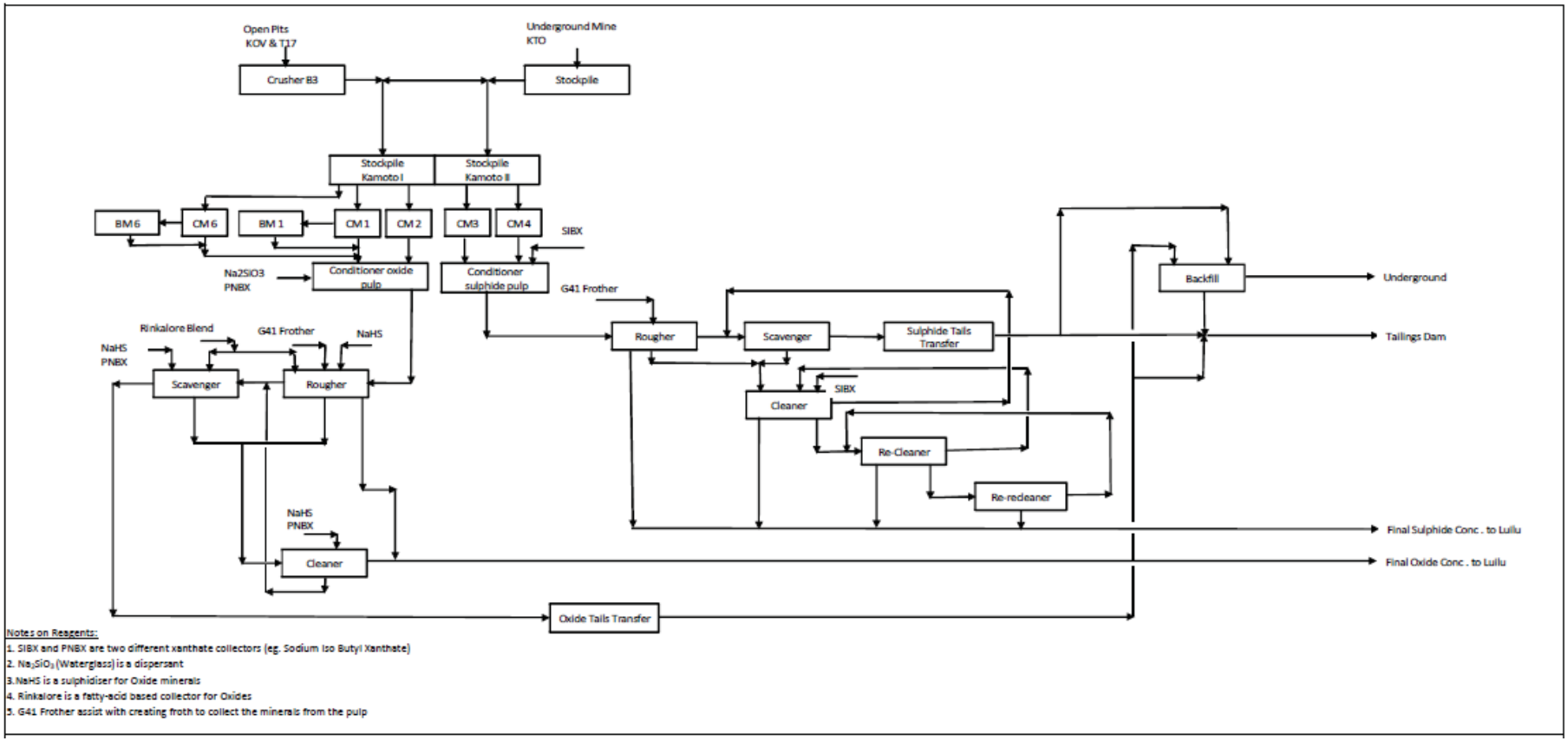

Figure 28: KTC Concentrator Block Flow Diagram (Present Arrangement)

Note: There is a primary crusher underground, not shown on the flow sheet.

Figure 29: 32' DIMA Mills

5.3.3 Flotation

5.3.3.1 Oxide Flotation

Milled oxide ore is subjected to three phase flotation, namely roughing, scavenging and cleaning. Reagent addition in the oxide flotation section is more complex than in the sulphide flotation section, namely a collector, potassium normal butyl xanthate ("PNBX"), a dispersant ("Na_2SiO_3" - waterglass), a sulphidiser ("NaHS"), a frother ("G41") and a blend of fatty acid collectors ("Rinkalore"). Copper recovery in the oxide circuit is consistent with industry standard. Final oxide concentrate is pumped via pipelines to the Luilu Refinery. Tailings are classified through a bank of cyclones and either pumped to the tailings dam or underground for back-fill.

5.3.3.2 Sulphide Flotation

The milled sulphide ore is subjected to a five phase flotation process of roughing, scavenging, cleaning, re-cleaning and final re-cleaning. Final sulphide concentrate is pumped via pipelines to the Luilu Refinery. In the sulphide flotation section, only a frother ("G41") and a collector, sodium iso-butyl xanthate ("SIBX") are used. Tailings are cycloned and either pumped to the tailings dam or underground for back-fill.

Figure 30: Flotation Cells

5.3.4 KTC Project Development

As part of the implementation of Phase 3, KTC is in the process of being refurbished to its original installed milling capacity of 7.6Mtpa by July 2011, equivalent to 230ktpa finished copper production at standard process efficiencies and resource model grades.

In conjunction with the mills refurbishment program, KCC are site manufacturing flotation cells, consistent with the original design, to add more flotation capacity and eventually greater copper recovery to the process. On completion of the flotation cell refurbishment, the DIMA mill, CM6 will have the capability to mill either oxide ore or a mixed ore without loss of process efficiency.

As part of the scoping study, a review of the existing DIMA mills identified the potential to return these mills from autogenous operation to a semi-autogenous operation. This had the potential to increase total installed milling capacity from 7.6Mtpa to ~9Mtpa, equivalent to 270ktpa finished copper production.

The front end engineering and early works project confirmed that a total KTC throughput equivalent to an output of 270 ktpa copper can be achieved. The increase to 310 ktpa copper will necessitate the installation of additional crushing, milling and flotation capacity.

Note that although CM2's primary duty is oxide, it can also operate on a sulphide feed depending on feedstock availability and concentrate demand.

Oxide concentrate that is surplus to the Luilu Refinery Phase 3 capacity will be forwarded to a filtration, bagging and storage plant currently under construction at KTC. The oxide concentrate will be exported as a final product up to a design plant capacity of 10 ktpm concentrate (grading > 22% Cu).

5.4 Luilu Refinery

Both concentrate streams (oxide and sulphide) are received at the Luilu Refinery for recovery of the contained copper and cobalt. The oxide and sulphide streams are kept apart as the oxide copper is already

acid soluble whereas the sulphide concentrate receives additional processing in the roaster to render it acid soluble. A block flow diagram of the current Luilu Refinery operation is shown in Figure 31.

5.4.1 Concentrate Reception

The primary purpose of concentrate thickening and filtration is to create a storage buffer capacity at the Luilu Refinery prior to sulphide roasting and oxide leaching. In addition it removes water from the concentrates to lower reagent consumption in the subsequent leaching circuit.

Concentrates received from KTC are dewatered in two oxide and two sulphide thickeners prior to being pumped to a set of four drum filters. In Phase 3 an oxide thickener and a drum filter were installed.

The filtered oxide and sulphide concentrate remain in separate circuits and are conveyed to a storage shed. They are reclaimed for feeding to the roasting and leaching circuits respectively.

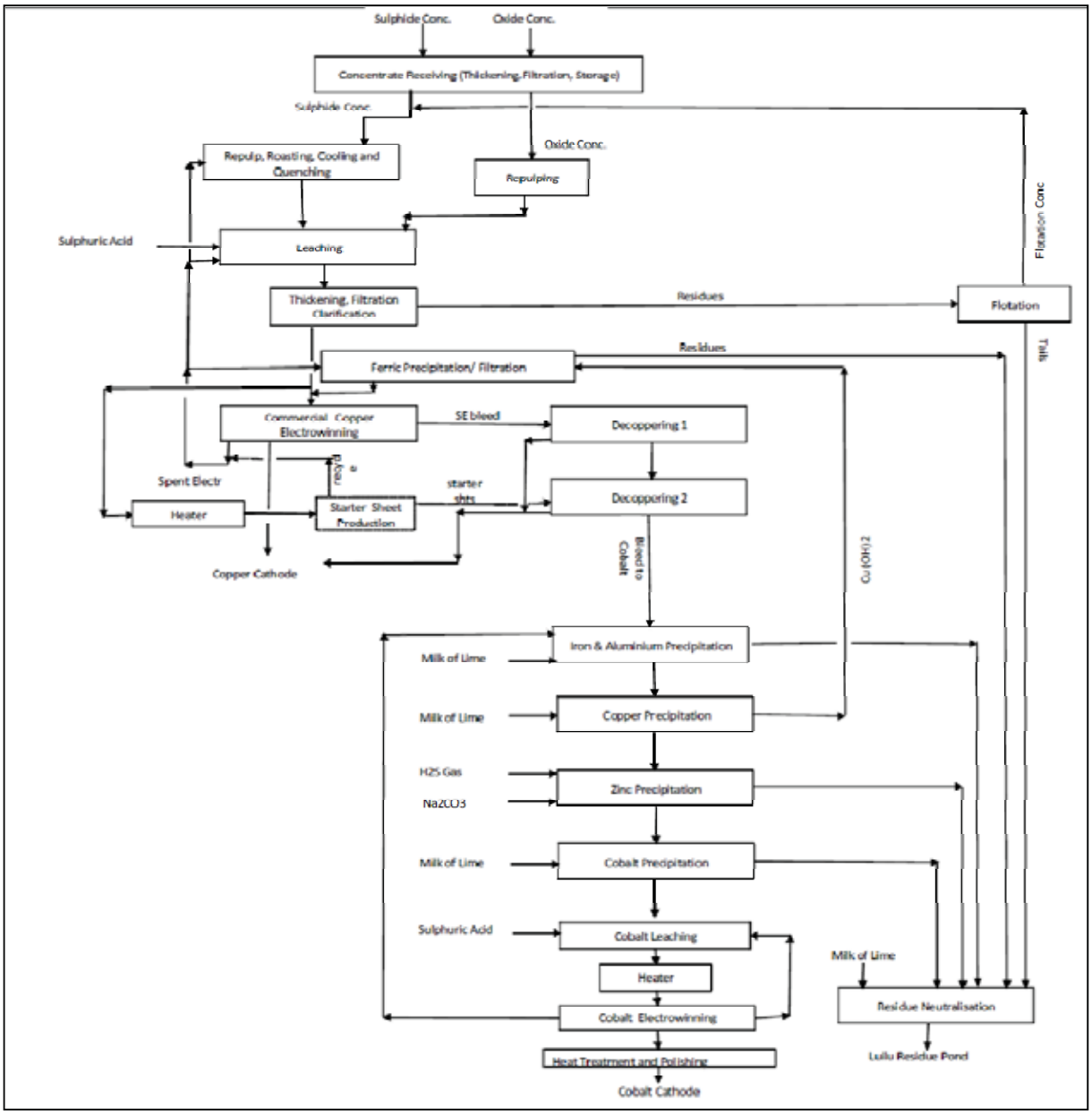

Figure 31: Luilu Refinery Block Flow Diagram (Present Arrangement)

5.4.2 Copper Production

The sulphide and oxide concentrates are treated to recover the contained metals.

5.4.2.1 Sulphide Concentrate

Sulphide concentrate is reclaimed from a bay in the storage shed and conveyed to a repulp mill where it is slurried at high pulp density. The slurry is injected into two or three of three roasters; one of 450 tpd nameplate capacity and two of 150 tpd nameplate capacity. The roasters operate at 650°C. Slurry is injected with excess fluidizing air. The sulphide concentrate is roasted to a calcine which comprises acid soluble compounds of copper and cobalt. The hot calcine is cooled to below 300°C and quenched in spent electrolyte from the copper electrowinning tank-house. Hot gases are passed through cyclones for dust

capture, cooled with spent electrolyte, scrubbed and discharged through stacks. The calcine / spent electrolyte slurry is pumped to the leaching section.

Figure 32: Sulphide Roaster at Luilu

5.4.2.2 Oxide Concentrate

Oxide concentrate is reclaimed from a bay in the storage shed and repulped with spent electrolyte.

5.4.3 Leach Circuits

In the atmospheric leach section, the repulped oxide slurry is combined with the calcine / spent electrolyte slurry from the roasters and with sulphuric acid. In order to improve the dissolution of cobalt, controlled amounts of sodium meta-bisulphite ("$Na_2S_2O_5$") is added to the leach.

After leaching, the slurry is thickened and the overflow clarified. The underflow is subjected to counter current decantation and residue filtration to separate liquid and residue solids. The residue solids contain most of the sulphides entering the circuit with the oxide concentrate which bypasses the sulphation roast and remain in a form which is not acid soluble.

The residue solids are subjected to flotation where most of the remaining sulphides are recovered and pumped to the sulphide thickeners for recovering the metal values. Residue flotation tailings are pumped to ponds after neutralization with lime.

The clarified overflow is pumped to the copper electrowinning tank-house where commercial copper is electro-won in cells with lead-antimony anodes and stainless steel cathodes. A small stream of the clarified

overflow goes to a starter sheet section where starter sheets are made for the de-coppering section. A bleed stream of spent electrolyte is taken off and subjected to iron removal by oxidation and by adjustment of the pH with copper hydroxide from a de-coppering step in the cobalt plant. The precipitated ferric-hydroxide is thickened, filtered and pumped to residue tailings. Another bleed stream of spent electrolyte is subjected to secondary copper electro winning in two stages to remove the bulk of the copper before pumping it to the cobalt plant. The bulk of the spent electrolyte is pumped to leaching and to cool the off gas and calcine in the roasters.

Figure 33: Finished Copper Product

5.4.4 Cobalt Circuit

The feed to the cobalt recovery circuit is a bleed stream taken from the copper electrowinning tank-house feed.

In the purification part of the cobalt plant, impurities are removed by precipitation, thickening and filtration in the following order:

- Iron and aluminium by oxidation with air and pH adjustment with milk of lime;
- Copper precipitation by pH adjustment with milk of lime (filter cake recycled back to ferric precipitation);
- Nickel removal with gaseous H_2S and recycled cobalt granules and pH adjusted with sulphuric acid this is currently not in operation as nickel levels are very low;
- Zinc removal with gaseous H_2S and sodium carbonate for pH adjustment.

After zinc removal, the cobalt is precipitated from solution with milk of lime at pH of 7.8 to 8.4 and filtered. The washed cobalt hydroxide is then dissolved with spent cobalt electrolyte and sulphuric acid, subjected to thickening, clarification and polishing filtration before pumping as advance electrolyte to the cobalt electrowinning tank-house.

In the cobalt electrowinning tank-house, the electrolyte is heated to 70°C and cobalt is electro-won in cells with lead-antimony anodes and stainless steel cathodes. After stripping, the cobalt cathode pieces are subject to heat treatment and polishing for production of final product.

The stripped electrodes are returned back into the electro winning circuit to repeat the process.

Figure 34: Finished Cobalt Product

The implementation of Phase 3 consists of the following primary scopes of work:

- New concentrate thickening and filtration facilities;
- Rehabilitation of concentrate storage area;
- Rehabilitation of the original two roasters;
- Rehabilitation of the oxide repulp area;
- Rehabilitation of the counter current decantation area;
- Addition of new residue belt filters;
- Rehabilitation of copper electro-winning;
- Rehabilitation of cobalt purification;
- Addition of an effluent treatment plant;
- Rehabilitation of the lime plant; and
- Rehabilitation of certain utilities.

The front end engineering and early works project envisage the following major developments for Phase 4:

- Additional concentrate filtration facilities;
- Additional roasting facilities;
- A neutral leach circuit;
- A copper solvent extraction (“SX”) plant;
- Conversion of the existing unused electro-refinery to electrowinning as base load copper production;
- Use of the existing copper electrowinning facility as variable top up capacity;
- Upgrading the cobalt purification facilities; and
- Cobalt hydroxide bagging facility.

The above work will enable ~200 ktpa of LME Grade A copper to be produced by electrowinning from the converted electro-refinery plus ~70 ktpa from the existing electro-winning facility. It will be possible to increase production in the existing electro-winning facility to ~110 ktpa, i.e. ~310 ktpa total production. Finally, provision is being made to include an additional SX facility for installation at a later date, so that all copper production from the Luilu facilities will be LME A Grade.

5.5 Risks

The project is at risk from a number of different areas, examples of which are as follows:

- Movements and changes in the markets and commodity prices which are dependent upon the global financial situation.
- Power outages and stability of the grid negatively impact upon production and at present KCC is not able to isolate itself from these issues although it has entered into agreement with SNEL, the national power utility company, to upgrade capacity of the DC link between Inga hydro-electricity facilities and Katanga Province to its installed capacity;
- Fluctuation in the power supply negatively impacts upon the performance of the electrowinning section;
- Logistics to and from site present an issue which needs to be carefully planned around and will result in KCC holding a larger than normal critical spares inventory; and
- Sourcing of and maintaining skilled staff on site is an issue.

6.0 TAILINGS AND WASTE

The Kamoto Interim Tailings Dam ("KITD") is the only tailings dam in operation at KCC. It was commissioned in 2008 for the safe disposal of copper tailings from the KTC which is located 500 m northwest of the tailings dam. The design life of the dam was initially envisaged to be 11 months, but due to an increase in tailings production, a revised design, aimed at increasing the life of the tailings dam by 2 years is in place. The dam covers an area of approximately 61 ha and was designed for a storage capacity of 1.3 Mm^3.

The tailings dam is a side-hill impoundment with a starter wall located around the western, southern and eastern flanks perimeter. The main delivery pipe is 350NB rubber lined steel spigot pipeline, which is laid around the full perimeter of the starter wall and has one valve in the north-western corner. A spigot system is being used to deposit tailings around the dam. The dam has four penstock intake structures i.e. the main penstock structure which is located in the northern portion of the dam, and three intermediate intakes which are located on the same outlet pipe to the south and at progressively lower elevations. The supernatant water drains out of the dam through the penstock pipeline to the outfall trench, located south west of the western embankment, which discharges into the Luilu River, further west. A toe drain constructed along the inner toe of the main embankment also discharges into the outfall trench at the same location as the penstock outlet.

As of October 2010, there was a total of approximately 2.2 Mt of tailings being stored in the dam with an average of 90 000 tonnes being deposited into the tailings dam per month.

Figure 35: Layout of the Kamoto Interim Tailings dam

Figure 36: Western Flank of the KITD Starter Wall (looking south)

Figure 37: Spigot System Deposition on the eastern flank of the dam

6.1 Desktop Review of Available Environmental Reports

The following reports and documents are in place for the operation, maintenance and the sustainability of the KITD:

- Operating and Maintenance Manual for the KITD (DRAFT COPY), Report No.380266/1, September 2008, SRK Consulting (SRK 2008).
- KITD Technical Evaluation, Report No. 410528/1, January 2010, SRK Consulting (SRK 2010a).

- Stability analysis document for the starter wall, November 2010, Swanepoel Laboratories Kolwezi (Swanepoel 2010).
- KCC Environmental Impact Study Final Review Report for the Client, Report No. 411167/1, March 2010, SRK Consulting (SRK 2010b).

6.2 Assessment of Compliance with Statutory Requirements

According to Article 64 of the Mining Code of the DRC, to own and operate a tailings facility, a mine only requires an operating license or “Permit d’Exploitation” (“PE”) for the concession on which it has constructed the tailings facilities or discharge effluent. As part of the process of obtaining this license, the method of tailings containment or effluent discharge must be referenced in either the Feasibility Study or Environmental Impact Statement (“EIS”), submitted by the mine to the DPEM. KCC has an operating license for concession PE525, which is the concession on which the KITD is constructed. Article 64 then allows for KCC to mine the resource and develop / construct the necessary supporting infrastructure (i.e. tailings facilities), effectively rendering KCC the license to own and operate the KITD.

6.3 Review of Rehabilitation Provisions and Liabilities

A closure plan for the tailings dam is included in the SRK 2010b report. This plan highlights the long term maintenance procedures for the facility. No cost estimate of the closure plan or any other financial implications are presented.

7.0 CLOSURE

7.1 Approach and Limitations to Closure Cost Review

7.1.1 Approach

An indicative closure cost estimate, based on available information, was conducted to serve as a basis for the review of the provided closure costs. The estimate also allows commenting on possible shortcomings with respect to the provided closure costs and additional financial provision required. The approach followed is summarised as follows:

- Identification and delineation of the relevant mining areas and associated infrastructure, primarily from Google Earth imagery and limited available plans;
- Identification of infrastructure and land use sub-categories within the above mining operations area characterised by similar conditions, for example light, medium or heavy infrastructural areas, waste rock and spoils stockpiles, and moderately or severely disturbed surface conditions, etc;
- Interpretation of the type, nature and sizes of structures from available information and measurement of the delineated areas in AutoCAD;
- Determination/verification of unit rates for plant dismantling and demolition, as well as associated reclamation, as per recent tenders available to GAA, similar work conducted recently in Africa, as well as consultation with demolition practitioners;
- Application of the above unit rates and associated quantities in spreadsheets arranged into sub-categories to illuminate the respective closure cost components for the cost review;
- Objectively determining the indicative closure cost based on the approach and criteria adopted by GAA for this review and comparing the findings from this costing to the existing closure costs conducted by the other consultants; and
- Compilation of a report reflecting the approach applied by GAA in determining the closure costs, as well as the cost comparison. Matters requiring attention to ensure that future closure costing is improved and more realistic are also listed.

7.1.2 Limitations

- This review of the existing closure costs was conducted as a desktop assessment based on limited information and subject to time constraints. As a result the closure cost estimation provided by GAA is **indicative only**, acting as a basis for comparison of the available costs and to assess whether these are appropriate (order of magnitude). Due to the mentioned limitations, the closure costs determined by GAA could not be regarded as definitive;

- An overall one day site visit to the mine site in support of the overall project, also addressing closure cost aspects, was conducted. This time on site was not sufficient to gain a full understanding of the closure related site aspects;

7.2 Available Information

The sources of information used for the closure cost estimate were as follows:

- Environmental Impact Study and Environmental Management Plan for Kamoto Copper Company. March 2010. Report no. 411167/1. SRK Consulting.

- Map of the Tilwezembe Concession PE 4963 DCP. Infrastructures on perimeters of the Convention JVACR. July 2009. KCC – Kolwezi DRC.

The above SRK report includes an Environmental Impact Study ("EIS") and Environmental Management Plan for KCC's intended integration of the processing facilities and phased refurbishment of the operations. As part of the EIS provision for environmental rehabilitation financial guarantee was included. The SRK decommissioning and restoration costing, conducted in 2010, towards determining the financial guarantee included the following limitations:

- The costing assumes that closure of the operations occurs with no remedial work having been done, with the liability being what it was when it was assessed. If material changes are made to the operation, it will be necessary to update the liability assessment;

- The liability assessment does not include any operating or capital costs that are likely to be incurred to management of the environment during operations;

- Although a liability has been included for the metallurgical plants, the Amended Joint Venture Agreement with GCM indicate that once KCC has finished utilising them, they will revert to GCM. These facilities are currently leased from GCM on terms defined in the Amended Joint Venture Agreement for a period to 2024, with two 10 year renewable options;

- The liability assessment does not include infrastructure that falls within KCC concession area, but which has not been operated by KCC. Examples include but are not limited to: Poto Poto Tailings dam, Kamoto Tailings dam and any waste dumps from KOV Open Pit, Mashamba East Open Pit or any other dormant open pits that pre-existed 2004 or has recently been constructed due to GCM related activities within the KCC concessions etc.

- The assessment does not include infrastructure previously operated by KCC, but which has now been transferred out of the concession area, such as the Kolwezi Concentrator.

7.3 Battery Limits

The above reports and associated information do not clearly stipulate the battery limits for which the documented closure costs apply. The battery limits were deduced and assumed from the available information and the interpreted Google Earth imagery.

The infrastructure description obtained from the available information is listed separately from those aspects inferred from the imagery and/or added by GAA.

7.3.1 Available information

The following battery limits were obtained from the SRK report as well as from the areas deduced from the maps made available for this work:

- Overall mine site and plant complexes, including fugitive disturbed areas (but excluding areas defined as GCM's liability): 2323 ha;
- Luilu Refinery and related areas: 51.6ha
- KTC and related areas: 36.4ha
- Heavy vehicle workshops ("SKM") and related areas: 5.4ha
- KTO mine and related areas: 25ha
- KOV Open Pit and related areas: 50ha
- T17 Open Pit: and related areas: 35.7 ha
- Riverine areas requiring reclamation and reinstatement: 4ha

Although a number of tailings storage facilities are evident on aerial imagery, none of these facilities are located within the overall battery limit that was assumed by GAA. Both GAA and SRK excluded the Kamoto TSF, the Poto Poto TSF, the Kingamyambe TSF and the sulphide TSF. However, the mine has to utilise tailings storage facilities as part of operations and therefore the unnamed TSF to the south of the Luilu Refinery were included in GAA's cost assessment. It is noted that the full rehabilitation costs for the latter has not been included in GAA's cost assessment, as this TSF is pre-existing 2004 and closure costs have to be confirmed between KCC and GCM.

7.3.2 Additions by GAA

The following closure costing components and related activities were also considered by GAA in the determination of their indicative closure cost estimate:

- Collection, handling and disposal of demolitions waste;
- The reclamation and reinstatement of affected streams and drainage lines;
- Reclamation of disturbed areas, including the collection, handling and disposal of contaminated soil as well as the removal and disposal of fugitive concrete.
- Additional allowances, including preliminary and general ("P&G") and contingencies.

Although there could be the possibility of ongoing management of contaminated excess mine water arising from the reclaimed mine workings, involving collection , handling , treatment and safe disposal of the treated mine water, the need and nature of this is unknown and hence has been omitted from the closure cost estimate. If required this could add a notable additional cost.

The battery areas indicated in red dashed lines on Figure 38 were assumed and considered. This includes the PE525 and PE4961 concession areas. An area described as Area No.2 includes the Luilu Refinery, and PE11602 which includes the T17 Open Pit and surrounding infrastructure. The battery limits also includes the TSF to the south of the Luilu Refinery as is described above.

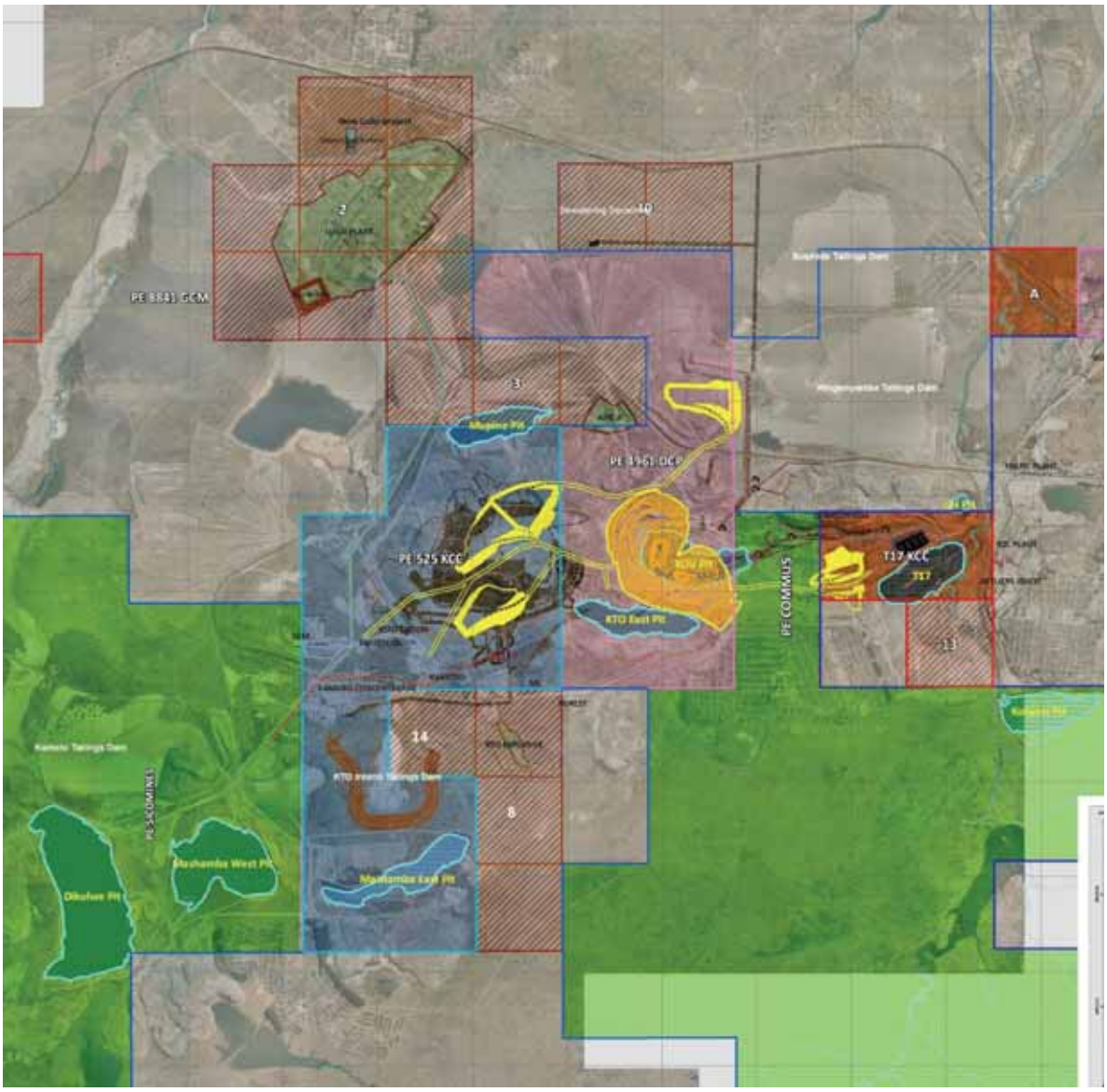

Figure 38: Map of infrastructure on perimeters of the convention JVACR - KCC

7.4 Assumptions and Qualifications

The assumptions and qualifications listed below have been made with respect to the closure cost estimate.

7.4.1 General

- The closure costs for the plant site could comprise a number of cost components. This report only addresses the decommissioning and reclamation/restoration costs, equating to an outside (third party) contractor establishing on-site and conducting the decommissioning and reclamation-related work. Other components such as staffing of the plant site following decommissioning, the infrastructure and support services (e.g. power supply, etc.) for the staff, as well as workforce matters such as separation packages, re-training/re-skilling, etc., are outside the scope of this report;

- Based on the above, dedicated contractors would be commissioned to conduct the demolition and work on the mining site and associated areas. This would *inter alia* require establishment costs for the

demolition and reclamation contractors and hence, the allowance of P&G in the cost estimate. Allowance has also been made for third party contractors and consultants to conduct post closure care and maintenance work, as well as compliance monitoring;

- It is foreseen that demolition waste, such as concrete and building rubble, would be largely inert and that a dedicated waste disposal facility will be licensed and constructed for the purpose of disposal of demolition waste. Provision has also been made for the reclamation and closure of the waste disposal site. Steel and related material from the plant demolition which has salvage value will remain on-site for sale to third parties with any salvage value from demolition waste material for GCM's benefit.
- As there would be no salvage value to KCC, no cost off-sets due to salvage values were considered in terms of accepted practice and thus only **gross** closure costs are reported;
- Concrete footings and bases would be demolished to a maximum of 1 000 mm below the final surface topography;
- All useable stockpiles of raw and/or saleable material would have been processed and removed off-site at closure and none of these would remain on site, thus requiring reclamation; and
- The existing villages would not be demolished, but would be transferred to third parties. This also applies to the services related to the village such as water supply and sewage treatment.

7.4.2 Site specific

It has been assumed that at mine closure the mine site and associated disturbed areas will be reclaimed to a sustainable predetermined final land use. This will not only require the dismantling of the physical infrastructure and addressing the aesthetic effects of the reclaimed mine site, but also addressing the residual impacts of the operations on the receiving environment. Therefore, the GAA closure cost estimate addresses, as far as reasonable, the possible latent and residual effects. In this regard the following site-specific closure measures have also been included in the cost estimate:

- Covering of the relevant TSF's with a 900 mm thick vegetated soil cover to limit the ingress of rainfall into the tailings that could result in contaminated net percolation (waste load) over the TSF footprint area, as well as the reinstatement of at least a beneficial post closure land use of grazing over the upper surface of the TSF;
- The rehabilitation of evaporation/pollution control ponds will include the following:
  - Removal of sediment up to a depth of 400 mm;
  - Removal of synthetic liner;
  - Removal of contaminated soil that could have occurred in those places where the liner has leaked; and
  - Collection, transport and disposal of the contaminated sediment and soil.
- The remaining waste rock and/or over burden dumps will be shaped and vegetated;
- Different shaping, levelling and re-vegetation methods will apply for disturbed areas based on the nature, extent and severity of disturbance. The following categories have been assumed:
  - Generally disturbed areas, characterised by transformation or partial absence of vegetation with limited erosion or soil contamination;
  - Areas from which infrastructure has been removed, characterised by severe transformation of the landscape and significant soil contamination and harmful material; and

- Severely disturbed areas characterised by excessive erosion and complete transformation of the land cover.

Dedicated rates for the shaping, levelling and reclamation have been applied for the above categories.

- The KTO workings are assumed to be accessed by one incline shaft with associated portal.
- In addition to the above underground mining, the rest of the mining is conducted from three open pits on surface ;
- The final mining voids or remaining open pits will not be in-filled and allowed to become open lakes over time with the required access control whilst these are re-watering (flooding). In order to limit access, an open rock enviro-bund to a height of at least 3 meters and its inside toe 20 m from the long term break-back line of the pit/void will be constructed . The bund will also serve the following purposes:
  - Safety measure to isolate the pit from people and animals by restricting access to the pit and voids;
  - Visual screening; and
  - Divert surface water runoff away from and around the pit, preventing erosion of pit or void lip/edge.
- Removal of contaminated soil from disturbed areas as part of general surface reclamation is required for approximately 20% of the reclaimed infrastructural footprint areas;
- Allowance has been made for a nominal amount of fugitive concrete to be removed and disposed of;
- Allowance has been made for care and maintenance as well as surface and groundwater quality monitoring to be conducted for a minimum period of 5 years to ensure and assess success of the implemented reclamation and closure measures;

7.4.3 Additional allowances

- Fixed ratios for P&G (6%) and contingencies (10%) have been applied.

7.5 Closure Cost Comparison

To provide a structure for the cost comparison, the costs are presented in a format routinely used for closure cost determinations, addressing the following categories:

- Infrastructural areas;
- Mining areas;
- General surface reclamation;
- Water management;
- Post closure aspects; and
- Additional allowances.

The closure costs determined by SRK and GAA are reflected in Table 56 and Table 57. Table 56 provides an overall summary of the cost comparison, whilst Table 57 provides a comparison of closure measures and related costs. Owing to the manner in which the SRK costs were presented these could not be fully assigned to the above categories, but was nevertheless attempted for the purpose of the cost comparison.

Due to the severely disturbed and possibly contaminated nature of the mining area, even small differences in battery limits could have a notable effect on the computed closure costs. Notwithstanding uncertainty in this

regard, the indicative closure costs determined by GAA indicate that the cost determined by SRK appears to be appropriate. Differences between the SRK and GAA costs are most likely due to the following:

- A general discrepancy in the battery limits adopted for the respective closure cost estimates;
- The base date for the SRK cost estimate is 2008. If a 10% escalation due to inflation is allowed for the two years plus period, the adjusted SRK cost amounts to about **USD 111 million.**
- Differences in the approach towards the rehabilitation of open pits;
- Reclamation and reinstatement of affected streams and drainage lines, albeit being limited;
- Reclamation of disturbed areas, including the collection, handling and disposal of contaminated soil as well as the removal and disposal of fugitive concrete.
- Safe disposal of demolition waste and the creation and final reclamation of a dedicated site for this purpose; and
- Clean-up and safe disposal of contaminated soils and fugitive contamination; and
- Allowance for P&Gs and contingencies.

Table 56: Overall cost comparison

Aspect	SRK 2008	GAA 2010
1. Infrastructural areas	$14,748,760.00	$37,488,097.50
2. Mining areas	$83,675,436.00	$8,804,457.05
3. General surface reclamation	$0	$45,186,054.10
4. Water management	$0	
Subtotal 1 (for infrastructure and related aspects)	**$98 424 196.00**	$94,100,578.65
5. Post closure aspects	$2,714,787.00	$1,757,960.00
Subtotal 2 (for post-closure aspects)	**$2,714,787.00**	$1,757,960.00
6. Additional allowances	Not clear whether included in SRK costs	$15,056,092.58
Subtotal 3 (for additional allowances)	**$0**	$15,056,092.58
GRAND TOTAL	**$101,890,223.00**	**$110,914,631.23**

Table 57: Detailed comparison of closure measures and related costs

Category with sub-categories	Evaluation
7.6 Infrastructural areas	
■ Dismantling of processing plant and related structures; ■ Demolition of steel buildings and structures; ■ Demolition of reinforced concrete buildings and structures; ■ Reclamation of access roads, railways and power lines; ■ Demolition of offices, workshops and residential buildings; ■ Fencing; and ■ Disposal of demolition waste.	■ The respective battery limits for the surface infrastructure appears to be different. Since no map was supplied with the SRK costing this could not be clarified; ■ The quantities and areas in the SRK document could not be verified. The GAA costing was based on the extrapolation/adaptation of verified costs for similar mining/industrial complexes; ■ The GAA costing includes the establishment, operation and closure of a dedicated waste disposal site for the decommissioning and restoration as it is assumed that another suitable site is not available; and ■ The GAA costing for infrastructural areas is comparable with the SRK costs when computed for the Luilu Refinery, KTC and KTO mine. ■ It is however noted that there may be no significant closure cost associated with infrastructural areas if GCM decide to retain the assets in the closed state following cessation of mining on the KCC concession. This aspect may have been considered in the SRK costing and is not taken into consideration in the review done by GAA.
7.7 Mining areas	
■ Opencast reclamation including final voids and ramps; ■ Excavations; ■ Sealing of shafts, adits and inclines; ■ Shaping of stockpiles, waste rock and overburden dumps; ■ Vegetation of stockpiles, waste rock and overburden dumps; ■ Reclamation of processing waste deposits and evaporation ponds; and	■ The SRK costing allowed for decommissioning and restoration of the Luilu Refinery, KTC; SKM; KTO mine; KOV Open Pit; T17 Open Pit and Mashamba East Open Pit. It is assumed that their cost of $83 675 437.00 is inclusive of general surface reclamation. If this is not the case it is anticipated that the SRK cost is too high; ■ It is unclear what SRK envisaged for the rehabilitation of open pits. The GAA costs allowed for the open pits to be left as is, and an open rock enviro-bund to a height of at least 3 meters and its inside toe 20 meters from the long term break-back line of the pit/void be constructed; ■ Both SRK and GAA omitted the Poto Poto and Kamoto tailings dams from the respective costs. However, it is unclear from the SRK costs whether provision

Category with sub-categories	Evaluation
■ Reclamation of subsided areas.	was made for any of the other tailings dams. The GAA costs includes a provision for the TSF to the south of the Luilu Refinery, and allows for the facilities to be provided with a 900mm thick evaporative cover; ■ The GAA costing allowed for shaping and vegetation of stockpiles footprint areas, assuming that the stockpiled material will be processed before decommissioning; ■ The GAA costs allows for the sealing of one incline shaft and the infilling of the associated access ramp portal to the KTO mine. However infilling of underground workings have not been provided for in the GAA costs. It is unclear what the SRK costs provided in this regard; ■ Both SRK and GAA omitted the Poto Poto and Kamoto tailings dams from the respective costs. However, it is unclear from the SRK costs whether provision was made for any of the other tailings dams. GAA did not include any tailings storage facilities in the assessment; ■ GAA costs allow for the reclamation of all generally disturbed areas and the clean-up of possible contamination over these areas, while it appears that the SRK costs provided for reclamation in predefined management areas only; and ■ The GAA costing is less expensive, but this could be attributed to differences in rehabilitation approaches, as well as battery limit areas.
7.8 General surface reclamation	
■ Shaping of disturbed areas; and ■ Vegetation of disturbed areas.	■ It is unclear whether the SRK costs provides for general surface reclamation of disturbed areas, although it can be assumed that surface reclamation of footprint areas of facilities were provided for; ■ In addition, the GAA costs allow for the removal and disposal of 500m³ of fugitive concrete; ■ The costs under this cost category cannot be compared, because these appear

Category with sub-categories	Evaluation
	to have been omitted from the SRK costs.
7.9 Water management	
■ Reinstatement of drainage lines; and ■ River reclamation.	■ The SRK costs do not allow for the reinstatement of drainage lines, and reclamation of contaminated rivers and stream, whereas GAA provides for reclamation of affected streams and the reinstatement of drainage lines over the full reclaimed area; ■ The costs under this cost category cannot be compared, because these are omitted from the SRK costs.
Cost comparison based on the rate per hectare:	
7.10 Post closure aspects	
■ Surface water quality monitoring; ■ Groundwater quality monitoring; ■ Reclamation monitoring; ■ Care and maintenance; and ■ Ongoing water treatment.	■ Although the SRK cost provides a cost per management area for monitoring and maintenance, it is not clear what the amount entails; ■ GAA cost allows for surface, groundwater and reclamation monitoring, as well as care and maintenance for a minimum period of 5 years over an area of 2080 hectares; ■ GAA has not made any allowance for ongoing water treatment, but due to the nature and extent of contamination this could be required. This could have a notable effect on the computed closure costs.
7.11 Additional allowances	
■ Preliminary and general ■ Contingencies	It is unclear what the SRK costs provided for in terms of additional allowances. The GAA costs allow 6% for P&G and 10% for contingencies

7.12 Matters Requiring Further Attention

The following matters require attention to arrive at a definitive closure cost estimate:

- Possible need for ongoing water treatment to ensure that possible contaminated decant from the flooded pits and underground working do not pose a long term threat to surface water quality and associated aquatic health;
- Confirmation and documentation of battery limits for the closure costing and providing the motivations/reasons for the inclusion and exclusion of areas;
- Compilation of proper inventories of infrastructure and mining activities within the respective battery limits and obtain sign-off by the mine on these;
- On-site quantification and measurement of those closure cost components with uncertainty with respect to the closure measures required and/or which are not adequately addressed in the indicative closure costs;

The possibility exists that significant impact by mining related spillages on the local stream/river systems may exist and needs to be confirmed by on-site assessment of potentially affected areas by a suitably qualified specialist, In the event that contamination that can safely be removed without causing excessive damage to the streambeds is identified, allowance has to be made for at least the de-silting and re-instatement of contaminated stream beds and banks. Other measures may also be required in order; to allow the natural aquatic ecosystems to return as far as possible. This could have a notable cost and has been excluded from this cost estimate, mainly due to uncertainty on responsibility for this environmental liability and the fact that such areas could not be detected from aerial imagery.

7.13 Conclusion

The findings as reflected in this report have primarily been based on the interpretation of Google Earth images of the respective sites. Moreover, in those instances where the required information was not available, estimates were made based on experience. Unit rates for the purpose of the review were obtained from GAA existing data base and/or from demolition practitioners. Where required, these were adapted to reflect site-specific conditions.

The review of the existing closure costs as well as recommendations in this regard has been completed from a risk-averse perspective and mainly errs on the side of caution. This approach allows for the costs to be refined as appropriate information becomes available, as opposed to possible under-estimation and associated provision that could lead to liability shortfalls.

Due to the severely disturbed and possibly contaminated nature of the mining area, even small differences in battery limits could have a notable effect on the computed closure costs. Notwithstanding uncertainty in this regard, the indicative closure costs of USD 111million determined by GAA indicate that the 2008 cost determined by SRK appears to be appropriate and can be applied as the basis for reclamation and restoration related financial provision at this point in time.

More work is required to arrive at definitive closure costs, also giving attention to those aspects highlighted in this report.

8.0 ENVIRONMENTAL, HEALTH AND SAFETY

8.1 Terms of Reference

The key objective of this audit was to identify major environmental or social impacts and stakeholder concerns associated with KCC operations which might represent a significant liability in regard to the proposed listing of Glencore International plc (or such other relevant group company) on the London and Hong Kong Stock Exchanges. Specifically this involved assessing the following items:

- The scope and content of the Environmental Impact Study ("EIS") and Environmental Management Plan ("EMP");
- The status of environmental authorisations;
- Compliance with permit and statutory conditions;
- Compliance with the Equator Principles where sufficient site information was available to do so;
- Major environmental and social risks and liabilities, specifically in regards mine closure;

The geographical extent of the audit was limited to mining-related facilities and activities in the KCC Concession Area as defined in the relevant section of this report.

8.2 The KCC Concession Area

Mining assets within the KCC concession are as follows:

- T-17 Open Pit, an operating open pit mine;
- KTO mine, an operating underground mine;
- KOV Open Pit, an operating open pit mine which is currently ramping up to full scale production;
- Mashamba East Open Pit, a development project;
- Tilwezembe Open Pit, a recently closed open pit mine; and
- Kananga Mine, a dormant open pit mine.

Processing assets within the KCC concession are as follows:

- The Kamoto Concentrator ("KTC");
- Luilu Refinery, an metallurgical plant;

Additional assets and/or facilities within the KCC concession include:

- Waste rock dumps ("WRD") and tailings storage facilities ("TSF") associated with the mining and processing operations, respectively; and
- Infrastructure ancillary to KCC mining and processing activities such as roads, pipelines, an analytical and metallurgical laboratory, mine stores, clinics, etc.

8.3 Information Sources Reviewed

The information sources on which the audit was based included:

- Site documentation provided to GAA including the EIS;
- Interviews which GAA conducted with site personnel on 8th December 2010; and
- GAA observations during the site visit of 8th December 2010.

These sources are discussed further below.

8.3.1 Site documentation

The key site documents which provided background to the KCC audit were as follows:

- A due diligence environmental and mine waste review of KML conducted by Metago Consulting Engineers in February 2009 (Metago, 2009).
- The Environmental Impact Study and Environmental Management Plan compiled by SRK Consulting for the Kamoto Project in March 2010 (SRK, 2010).

The Metago (2009) and SRK (2010) investigations provide extensive coverage of: existing environmental and social management practices implemented at KCC; gaps that are significant in respect of compliance with Equator Principles and IFC Performance Standards; and necessary measures to ensure compliance going forward. This audit relies heavily on these reports, with additional comment where circumstances have changed or the mine has progressed with respect to implementation of the recommendations of the studies.

Additional sources of information which were reviewed during the audit included:

- Annual site environmental incident registers (KCC October 2009; KCC October 2010).
- Water quality data collected at various KCC monitoring locations during the following periods:
  - Between May 2009 and March 2010 (KCC Luilu Metallurgical Laboratory);
  - On 27th May 2010 (Talbot & Talbot, 24th June 2010);
  - Between 14th to 20th July 2010 (Talbot & Talbot, 16th August 2010); and
  - On 1st and 2nd September 2010 (Talbot & Talbot, 16th September 2010).
- Site dust fall monitoring data collected on a monthly basis from January to September 2010.
- An independent technical report on KML material assets (SRK, 2009).

8.3.2 Interviews with site personnel

The following site personnel participated in the audit interviews and site visit:

- Mr. Louis Kasuyi: Secretary General;
- Mr. Luck Mumba: Manager: Community Development and Public Relations; and
- Mr. Patrick Mbaya: Environmental Co-ordinator

8.3.3 Site areas visited

On 8th December 2010 brief visits were conducted to specific areas of the concession which were identified in the site documents and site interviews as presenting potentially significant environmental and social areas of concern that may give rise to environmental liability.

These areas specifically included the following:

- The Haute (High) Kalemba and Basse (Low) Kalemba TSFs, at which wall integrity and operational freeboard concerns pose the risk of seepage and overflow of tailings and supernatant water to the receiving Luilu River system;
- The point of discharge of process plant effluent to the Luilu River;
- The KITD including effluent discharge from the Luilu Refinery and bypass infrastructure; and
- WRD (T-17 Open Pit) and open pit facilities with the potential to cause nuisance impacts (dust, noise, vibration and structural damage) to the nearby Musonoi Village.

8.4 Limitations of the Audit

This report is based on a high level overview of the KCC mine operations by experienced GAA staff. The review involved a one day visit to the mine, with the time divided between travel, the identification and review of available documents, discussion with key personnel and a brief visit to areas of greatest concern on site. The review therefore focuses only on critical environmental and social issues, so as to identify risks that could be major liabilities. Wherever possible, existing documentation has been used as a basis for conclusions drawn.

In a number of instances it has not been possible to fully verify statements made by mine personnel. Where this was the case, it is noted in the report and the source of the information is indicated.

8.5 Results of the Audit

The results of the environmental audit of KCC operations and activities are presented in the subsections that follow.

8.5.1 Authorisations

8.5.1.1 Operating licences

Article 64 of the DRC Mining Code (Law No 007/2002 of 11th July, 2002) requires a mine to hold an operating license or “Permit d’Exploitation” (“PE”) from the DRC Mining Ministry (“CAMI”) before mining the resource or developing the necessary supporting infrastructure.

KCC holds approved operating licenses for all of its concessions as detailed in the Legal Tenure section of the Executive Summary of this MER. In terms of these operating licences, KCC may mine the resources and develop the necessary supporting infrastructure (such as TSF and WRD), provided that the method of containment or effluent discharge is referenced in either the Feasibility Study or Environmental Impact Statement (EIS) which has been received by the Department for the Protection of the Mining Environment (“DPEM”).

8.5.1.2 Environmental Impact Study and Environmental Management Plan

In terms of the DRC Mining Code and the DRC Mining Regulations (Decree No 038/2003 of March 2003) the applicant of an exploitation licence is required to submit an Environmental Impact Study (“EIS”) and Environmental Management Plan (“EMP”) to the Department for the Protection of the Mining Environment (“DPEM”).

SRK (2010) has compiled a draft EIS and EMP for KCC which, subject to approval by DPEM, will replace the EIS and EMP reports previously approved for the DCP and KCC projects pre-merger. These documents address impacts associated with all KCC assets and operations obtained through the Amended Joint Venture Agreement, including infrastructure upgrades such as those to the Luilu Refinery.

The KCC EIS and EMP were compiled to meet DRC regulatory requirements (specifically the DRC Mining Code and Mining Regulations). The EIS and EMP documents were submitted to DPEM in January 2011.

8.5.2 Compliance against Equatorial Principles

Table 58, as set out below, provides a synopsis of the key findings of the audit of KCC’s compliance against Equator Principles and IFC Performance Standards, including the identification of environmental and social risks associated with KCC operations relative to the EIS compiled by SRK in March 2010.

It takes into account the Metago (2009) results and builds on them, taking into account that progress has been made since and that site conditions have changed.

Table 58: Synopsis of key environmental and social findings of the Metago (2009) due diligence report.
Items in red font are biophysical impacts/risks that could/do result in non-compliance with Equator Principles.

Equator Principle	Requirement	Compliance Rating	Reasons for Compliance / Non Compliance
Principle 1: Review and Categorisation	Projects are categorised on the basis of the magnitude of potential impacts and risks	Compliant	■ The KCC project was appropriately classified as a Category A project due to nature and scale of potential impacts
Principle 2: Social and Environmental Assessment	Social and Environmental Assessment Process required to address impacts and risks of construction, operation and closure. Mitigation required which is appropriate and implementable	Compliant	■ EIS and EMP completed (SRK, 2010) at appropriate level of detail covering all relevant elements of environmental/social assessment. Compliance when public consultation completed and EIS submitted and approved. ■ According to Article 64 of the Mining Code of the DRC, to own and operate a tailings facility, a mine only requires an operating license or "Permit d'Exploitation" for the concession on which it has constructed the tailings facilities or discharge effluent. Copper oxide ores are currently mined by KCC. ■ Possible future mining of underlying sulphide ore could be associated with the potential for acid rock drainage ("ARD") from inflow into exposed mine workings, waste rock and tailings. While the country rock in the area is dolomitic in nature, and any acid generated is likely to be neutralised, this has not been confirmed.
Principle 3: Applicable Social and Environmental Standards	IFC PS 1: Social and Environmental Management System	Partially compliant	■ Organizational capacity currently considered inadequate to achieve the implementation of the EMP's and strategies on the site. This is being addressed through recruitment of appropriate environmental personnel. ■ Greater buy-in to environmental management practices is required, as the responsibility of all members of staff required. ■ Job specific environmental training of employees required ■ Retrenchments a concern in respect of environmental performance ■ Implementation of an EMS would be expected to resolve most of the above issues and this is currently in draft form for review and implementation in 2011.

	IFC PS 2: Labour and worker conditions – working conditions and management of worker relationship	Compliant	■ KCC labour policies and practices are based on DRC law. Formal retrenchment process exists and is a consultative process for local workers, involving discussion with unions, community leaders and others.
	IFC PS 2: Labour and worker conditions – protecting the workforce	Compliant	■ KCC does not employ children or undertake forced labour practices
	IFC PS 2: Labour and worker conditions – Occupational Health and Safety	Compliant	■ Workplace Occupational Health and Safety Plan in place and implemented with some limitations ■ On-site risk assessments undertaken. Currently an Emergency Response Team ("ERT") has been initiated and trained to internationally recognised standards ■ Occupational Health and Safety Centre constructed as part of a capital project which included construction of a hospital designed to accommodate all employees and contractors and their immediate dependents. The hospital was commissioned in 2010 and is fully compliant with DRC requirements.
	IFC PS 2: Labour and worker conditions – workers organizations	Compliant	■ Workers organizations (unions) represented at KCC ■ Mine uses contractors who are reputable and legitimate enterprises
	IFC PS 2: Labour and worker conditions – non employee workers and supply chain	Partially compliant	■ Based on the standard contractual terms applied by KCC for contractors, it places an obligation on them to demonstrate that they are registered with the relevant DRC authorities for compliance with DRC legislation ■ Presently no indication of how contractor environmental performance is monitored ■ Although issues regarding child or forced labour practices amongst contractors and suppliers are not specifically tested with each supplier or contractor during the tender processes, all contractors engaged on site have to undertake an extensive induction programme which details health, safety and environmental requirements and which would eliminate any potential for child labour.

	IFC PS3: General requirements	Partially compliant	■ An integrated water and waste management plan ("IWWMP") has been compiled for KCC which must still be implemented (waste categorisation has started) ■ There are several domestic waste landfill sites and hazardous waste landfill sites in the concession area. No specific permit is required for construction / operation of either the domestic waste or the hazardous waste landfill site, as these facilities are mandated within the EIS. On construction of the hazardous waste landfill site, KCC has an obligation to notify the DPEM which has already been completed. ■ The disposal of mine effluent, underground dewatering and contaminated storm water has impacted negatively on rivers flowing through the concession area. However this is not solely due to mining activities by KCC. The impact of artisanal mining activities adjacent to the KCC concession which have a significant adverse effect of river water quality and flow must also be taken into account, as well as the historical and current activities and liabilities of GCM. ■ The potential for TSF's to pollute groundwater has not been adequately quantified by contaminant transport modelling ■ KTC has no system to separate clean and dirty water, as its' storm water drains flow directly to the environment rather than being captured in a containment pond ■ Dust generated from TSF's, WRD's and unpaved roads during the dry season may impact on the health of employees and community members, as well as reducing visibility (safety hazard). To mitigate the impact KCC has made extensive use of mobile dust suppression equipment (both from KCC and contractors) to minimise the potential for dust generation.
	IFC PS 4: Community Health, Safety and Security – Community Health and Safety	Compliant	■ KCC Community Health and Safety Policy and Community Health and Safety Plan, take into account PS 4 and World Bank standards. The Plan considers a wide range of diseases and interventions including malaria and HIV Aids and potential loss of social benefits when the mine closes

	IFC PS 4: Community Health, Safety and Security – Security	Partially compliant	■ Security Plan developed which is compliant with PS 4 and World Bank requirements into account, but is still to be implemented
	IFC PS 5: Land Acquisition and Involuntary Resettlement – general requirements	Compliant	■ There are no plans to relocate any of the surrounding communities nor are there any foreseeable operational requirements to do so.
	IFC PS 5: Land Acquisition and Involuntary Resettlement – private sector responsibilities under government managed resettlement	N/A	■ -Not applicable
	IFC PS 7: Protection of Indigenous Peoples	N/A	■ -Not applicable
	IFC PS 8: Cultural Heritage – protection of cultural heritage in project design and execution	Compliant	■ A Heritage assessment has not been undertaken for the proposed new development sites such as the Far West Tailings Dam as no decision has yet been taken as to whether it is required.
	IFC PS 8: Cultural Heritage – project's use of cultural heritage	Compliant	■ The mine does not use cultural heritage resources
Principle 4: Action Plan and Management System	Environmental and Social Action Plan	Partially compliant	■ Implementation of the EMS is required which is in draft form for implementation in 2011
Principle 5: Consultation and Disclosure	Ongoing consultation with affected communities in a structured and appropriate manner	Compliant	■ Appropriate public consultation was undertaken to develop the SRK EIS and EMP
Principle 6: Grievance Mechanism	Formal grievance mechanism required as part of the management system	Compliant	■ Grievances to be recorded as part of the EMS when this is operational
Principle 7: Independent Review	Independent social or environmental expert not directly associated with the borrower to review the assessment, consultation process and Equator Principle compliance	Not Applicable	- Not Applicable
Principle 8: Covenants	The following covenants to be included in financing documentation:	Potentially compliant	■ Recommended that the covenants should be included in the

	The borrower will: ■ Comply with all host country social and environmental laws, regulations and permits; ■ Comply with the action plan during construction and operation in all material respects; ■ Provide reports (not less than annually) to document compliance with laws, regulations and permits; and ■ Decommission the facilities in accordance with an agreed decommissioning plan		financing documentation for KCC financiers ■ If the Environmental Management Plan and EMS are implemented, the KCC operation appears to be capable of meeting Equator Principle requirements.
Principle 9: Independent Monitoring and Reporting	An idependent, experienced external expert to verify monitoring information	Not compliant	■ Not consistently undertaken

Note: 'IFC' refers to the International Finance Corporation. 'PS' refers to 'Performance Standard'

8.6 Key environmental risks relating to KCC operations

8.6.1 Impact of TSF and plant effluent discharges on river systems

The key risk areas in which tailings deposition and effluent discharges impact on river system in the KCC concession include the following:

- Hazardous and non-hazardous effluents from the Luilu Refinery are currently being disposed to a ground depression to the south of the plant and overflow into the Luilu River. This is primarily due to problems with inadequate facilities to neutralise the leach residue effluent and the concern that the low pH of the effluent will corrode the pipeline transporting tailings to KITD. This activity has been practiced since construction of the Luilu Refinery and represents a legacy issue. However, KCC has recognised the potential environmental risk it poses and is addressing the issue through an engineering study which has been completed by SNC-Lavalin and which is currently scheduled for implementation in 2011; and

- Uncontrolled release of minor quantities of tailings from the KITD through the penstocks and spillways into downstream redundant tailings facilities and eventually into the Luilu River, which represent a significant environmental risk to KCC by virtue of their high total dissolved solids ("TDS"), variable pH, high total suspended solids ("TSS") (> 500 mg/l) and non-compliant levels of copper ("Cu"). These releases were addressed in 2010 with an extension to the KITD facility and with further works scheduled to be completed on KITD in 2011 in advance of the LOM tailings facility being engineered and constructed in preparation for long term tailings management in 2012.

- Historical and current discharge of tailings material into the Luilu River represents a significant environmental risk to KCC. During the site visit to the Basse Kalemba and Haute Kalemba TSF's it was observed that the wall integrity and operating freeboard appeared insufficient to prevent the seepage and overflow of tailings and supernatant to the Luilu River. Aerial photographs of the area show extensive silting of the Luilu River with tailings material. However the Basse Kalemba and Haute Kalemba TSF's were designed and constructed by GCM and were operated and filled prior to KCC commencing operations in the area. The deposition in the Luilu River basin predominantly originated from the collapse of the Poto-Poto tailings facility which does not form part of KCC concession

The only activity which is attributable to KCC impacting on water quality in the Musonoi River is the discharge of water from KOV Open Pit into the river. Although high levels of contamination occur in the Musonoi both upstream and downstream of the concession, the impact from KOV Open Pit dewatering is relatively minor as discussed below.

8.6.2 Impact of KOV Open Pit dewatering on Musonoi and Luilu River quality

SRK (2010) indicated that the KOV Open Pit lake is being dewatered at a rate of 5 000 to 6 000 m^3/hour. Daily silt monitoring data collected by KCC indicates that the pit water exceeds the DRC TDS discharge limit of 100 mg/l infrequently (on approximately ten occasions per year and generally after heavy rains) and this water is therefore discharged straight to the Musonoi River.

As the water level in the KOV Open Pit approaches the pit bottom there is the expectation that the accumulated sludge will be suspended in the water column due to the agitation caused by pumping, thereby exceeding the DRC TDS discharge limit. It is anticipated that KCC will make use of two existing lined settling ponds to control the silt load before discharge of the water to the Musonoi River. The accumulated sediments would be periodically mechanically removed to an adjacent waste rock dump.

In the absence of detailed chemical analysis of the discharge water, SRK (2010) anticipated that the pit water would pose a relatively low risk, except for possible elevated concentrations of Cu, cobalt ("Co") and manganese ("Mn"). This should be confirmed through regular monitoring.

Concurrent with pit lake dewatering is a strata dewatering program in which groundwater is abstracted from boreholes around the pit perimeter and collected into the "Koppies" Dam. The current planned short term

abstraction rate is 1 200 m^3/hour; however, this will increase to 2 500 m^3/hour and finally 4 000 m^3/hour as the size of KOV Open Pit increases.

Any excess water in Koppies Dam that is not used for either potable water (in Luilu or UZK villages) or as process water (in Luilu Refinery) is discharged to the Luilu River.

In summary, the impacts of KOV Open Pit dewatering on the Luilu River relate to a relatively low risk of silt loading and an unknown risk of contamination with Cu, Co and Mn which should be confirmed through monitoring.

8.6.3 Impact of dust fallout on communities

The draft EIS and EMP for KCC (SRK, 2010) indicates that modelled baseline PM_{10} concentrations exceeded the DRC guideline (500 µg/m^3) at various locations concentrated within the concession boundary.

For comparison, total baseline dust fall exceeded South African “Action” (1200 to 2400 mg/m^2/day) and “Alert” (< 2400 mg/m^2/day) guidelines at various locations within the KCC concession and along the main roads

Figure 39 shows dust fall monitoring results for the period July 2007 to September 2008 (SRK, 2010) as well as for the period January 2010 to September 2010 (data received from KCC). Dust fallout frequently exceeded the South African “Alert” guideline during 2010 at each of the monitoring sites, including those within the Luilu, Tshamundende, Kapata and Musonoi villages. Site personnel indicated that the relatively higher dust fall rates in 2010 relative to previous years likely relates to an improvement in the method by which KCC now monitors dust fall.

Annual KCC environmental incident registers (KCC, October 2009; KCC, October 2010) record community complaints of dust fall, particularly within the village of Musonoi, which is located approximately 500 m from the disposal of waste rock at the T-17 Open Pit WRD (refer Figure 40).

It should be noted that the dust fall from historical GCM waste rock facilities contributes significantly to the overall dust fall out. The overall dust fall out is also impacted by mining activity from other operators in the area particularly artisanal miners on the GCM concession area.

Although the majority of the dust fallout (which leads to the South African "Alert" guidelines being exceeded) can be attributed to the GCM waste rock facilities, to minimize the potential for KCC's own dust generation, KCC has made extensive investment in and use of mobile dust suppression equipment (both from KCC and contractors).

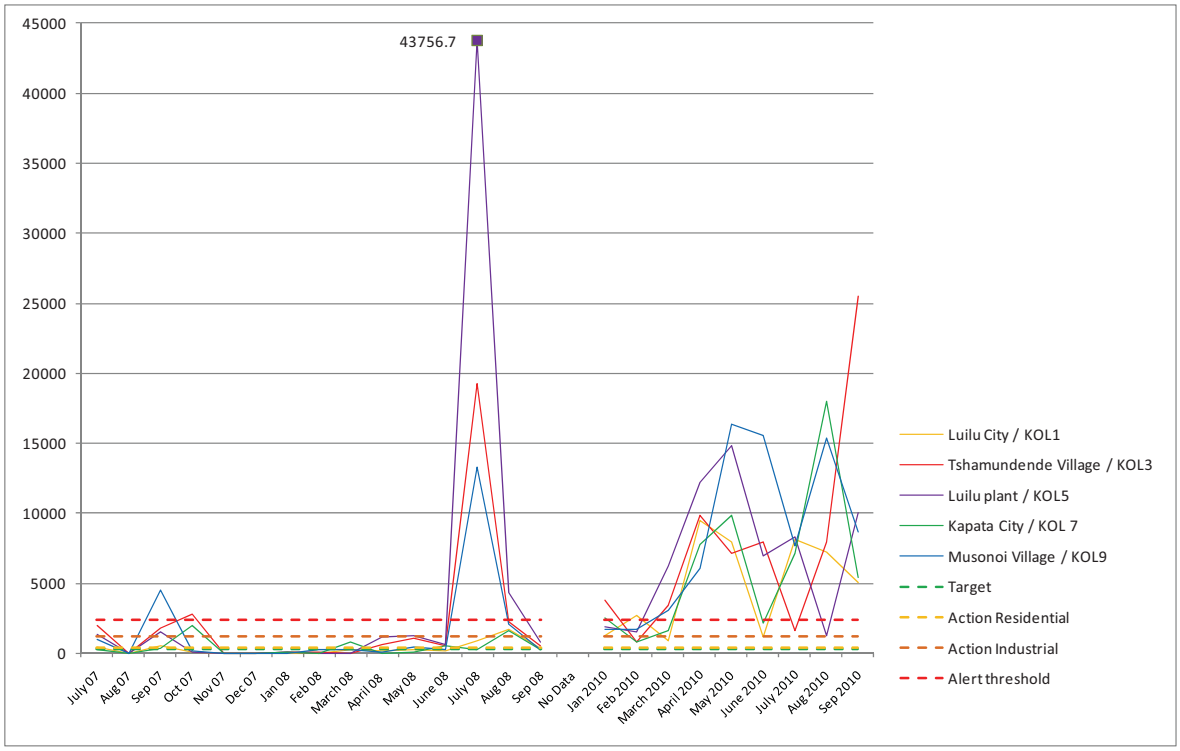

Figure 39: Dust fallout (mg/m2/day) at various monitoring locations within the KCC complex

Figure 40: Musonoi village photographed from T17 waste rock dump

8.6.4 Impact of blasting and vibration on communities

There are amplitude contours for blasting of open pits (KOV Open Pit and T-17 Open Pit) and KTO mine in the SRK, 2010 report.

The amplitude contours were defined as follows:

- 0.5 mm/s - vibration is distinctly felt by humans;
- 5.0 mm/s - disturbing to human beings and complaints are likely;
- 15 mm/s - 5% probability of cosmetic damage to buildings;
- 150 mm/s - damage road surfaces, dam walls, slimes dams and minor cracking of walls and concrete structures;
- 600 mm/s - steel structures should be secured to concrete foundations to ensure that buckling of structures does not occur.

KCC will not blast within a proximity to Musonoi village which will result in the 5mm/s vibration amplitude being exceeded.

The draft EIS (SRK, 2010) requires the mine to develop a monitoring protocol for air blasts and vibration measurement associated with blasts 200 m away in the direction of Musonoi and Kolwezi (KOV Open Pit and T-17 Open Pit blasting). Approval of the draft EIS and EMP by the DPEM would make this commitment binding.

8.6.5 Radioactivity impacts

A Gamma radiation survey conducted over the KCC concession and adjacent properties indicated the following:

- Substantially elevated radiation levels occur at:
  - The uranium ore storage area south of Kingamyambe TSF;
  - The uranium storage area north of the KOV Open Pit;
  - The Luilu tailings area south of the Luilu Refinery;
  - The Kolwezi Concentrator; and
  - Areas on the eastern side of the historical KOV Open Pit WRD.
- Areas with moderately elevated radiation levels include:
  - Kingamyambe TSF;
  - The sulphide tailings area;
  - The historical KOV Open Pit WRD;
  - In and around the dormant Musonoi (“GT”) Open Pit; and
  - The Luilu Refinery.
- Surface water sites showing elevated radiation levels include:
  - Luilu River near Nana Village;
  - South of the Luilu Refinery;

- The KOV Open Pit;
- Green tank discharge to the south side of the Kingamyambe TSF; and
- The Mashamba West Open Pit.

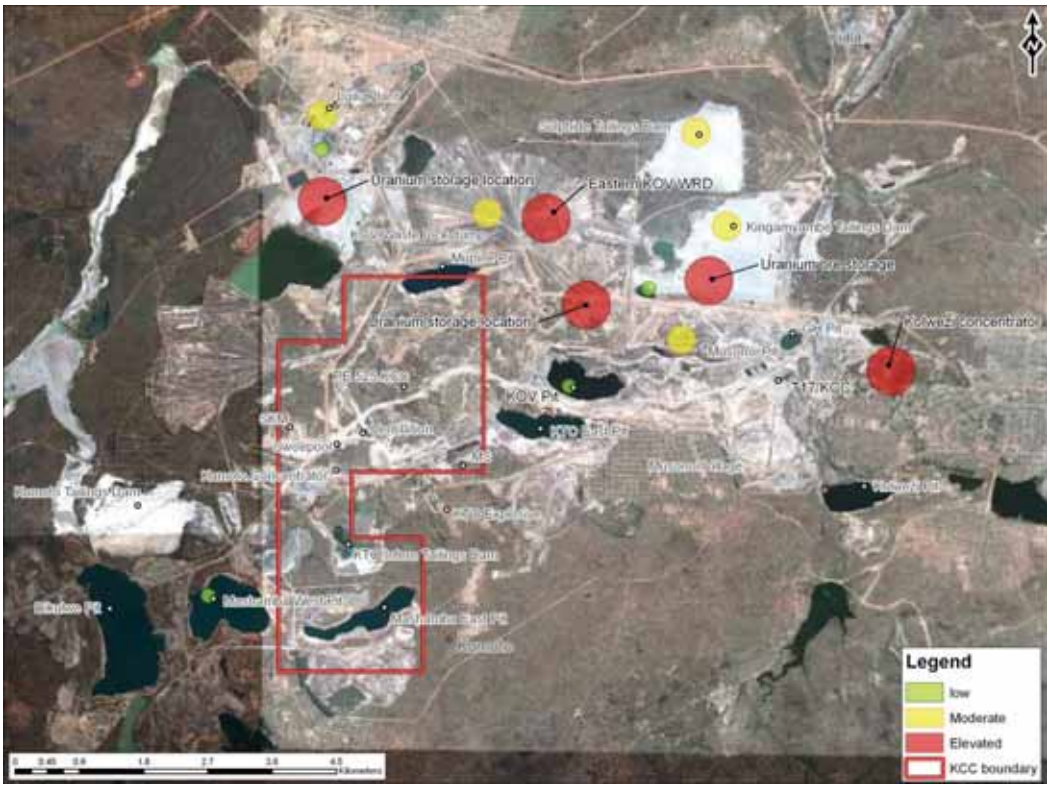

Figure 41: Relative levels of radioactivity in the KCC Concession and surrounds

Site personnel interviewed during the KCC audit indicated that radioactive waste rock occurring within the T17 Open Pit is handled and stored separately from non-radioactive waste rock. KCC has capped this radioactive WRD with non-radioactive waste rock in compliance with internationally accepted standards.

Although the uranium storage areas mentioned above are posted with radiation warning signs, these are largely ignored by artisanal miners who access these areas either intentionally or through lack of awareness. All waste dumps with elevated uranium levels are historical dumps which remain the liability of GCM. KCC has previously been prevented by GCM from relocating or covering these waste dumps to reduce the potential for exposure to artisanal miners.

Artisanal miners also access WRDs in the GCM concession, and while this falls outside of KCC liability, there is a risk of reputational damage to KCC if the resultant health effects are perceived to relate to KCC operations.

8.6.6 Rehabilitation of waste rock dumps

The draft EMP for KCC (SRK, 2009) contains the following obligations in regards the rehabilitation and closure of WRD's:

- Where WRD slopes exceed 24°, KCC should (where possible) cut back the slopes to a lesser angle. Where this is not possible, erosion control measures such as anchors, gabions or vegetation must be constructed;

- KCC should repair erosion on the WRD top and side slopes;
- Un-stripped weathered overburden should be used as a dump dressing to provide a growth medium for vegetation;
- Indigenous species must be used for re-vegetation. Soil ameliorants (fertilizers, mulch) will be applied until organic matter accumulates in the soils;
- As erosion is still expected from the dumps, a series of toe paddocks will be established to reduce the impact of sediment on the receiving environment, and
- Although it is unlikely that groundwater will be significantly impacted by WRD leachate, this should be confirmed by ongoing monitoring during operations.

The current steep slope angles of WRD's at KCC will significantly impede rehabilitation efforts and re-contouring is therefore required, particularly at the T-17 Open Pit WRD due to the abovementioned dust impacts on Musonoi Village.

8.6.7 Disposal of hazardous and non-hazardous wastes

- Domestic waste landfill sites have been constructed on KCC site as appropriate. Under DRC legislation, landfill sites do not need certification but must be constructed under acceptable practices, which has been complied with.
- Hazardous wastes identified within the KCC concession (primarily at the KTC and the Luilu Refinery) include: used oil; fluorescent tubes; batteries; old chemicals and chemical containers; spent anodes and catalysts. The handling and disposal of these hazardous wastes represents an environmental and safety liability to KCC. The relevant statutory authority will be visiting KCC in January 2011 to assess KCC's proposal for the location, design and layout of a hazardous waste disposal site and to approve its construction.

8.6.8 Historical soil pollution sites

A number of sites of historical soil pollution exist on the site, for example the contamination of soils with Cu and Co from Luilu Refinery effluent. It is recommended that an assessment of the areas of soil pollution be undertaken to determine the extent and significance of historical soil contamination in the KCC concession. An action plan should then be compiled to rehabilitate these soils.

8.6.9 Risk of acid rock drainage with future mining of sulphide ores

Copper oxide ores are currently being mined at KCC. There is potential to mine the underlying sulphide ore in future, which could result in a potential for acid rock drainage ("ARD") from inflow into exposed mine workings, waste rock and tailings. While the country rock in the area is dolomitic in nature, and any acid generated is likely to be neutralised, this has not been confirmed. Geochemical testing of mining and waste materials is therefore advised to determine the likelihood and significance of ARD impacts.

8.7 Key Social Aspects and Risks Relating to KCC Operations

With reference to the EIS and EMP (SRK, 2010) and the discussions held with KCC personnel on site, the following comments are made in relation to key social issues raised in Table 58

- **Social Assessment (Equator Principle 2):** KCC submitted the SRK EIS to the DPEM in January 2011. Completion of this process will bring the company into line with requirements for impact assessment and environmental licensing;
- **Social / Environmental permits (Equator Principle 2):** All environmental permitting is in place.
- **Corporate Social Responsibility (Equator Principles 3 & 4):** An appropriate organisational structure and staffing for social impact management on the mine has been set up under the Community

Development Manager. The Department is responsible for the management of community affairs, including: day-to-day interaction between the community and the mine; grievance reporting; and the implementation of the company's Corporate Social Responsibility programme.

The department consists of 17 people, including superintendents, supervisors and community liaison officers ("CLO") for each community directly affected by KCC operations. In addition, representatives in each community have been identified to interface with the KCC team who are compensated for work they perform. CLO's report daily to the Community Development Manager and monthly reports are prepared.

In 2010, approximately USD8 million was allocated to community development projects. The list of projects includes: construction of community infrastructure (schools, water supplies roads, hospitals); health interventions (malaria and HIV control); and agricultural projects. While comprehensive documentation about the rationale for project selection was not available for review, the budget is managed by the Community Development Department and there appears to be an appropriate, structured, method for deciding about project allocation, with the involvement of stakeholders. The Community Development Manager anticipates a budget of approximately USD10 million for 2011.

- **Incidents (Equator Principle 3 - IFC PS 4 Community Health, Safety and Security).** Six major sulphuric acid spills were recorded in the 2009 incidents register and a further two less-significant spills were logged in 2010. No community injury or health issues were recorded, although in some instances the outcome of the spill was not recorded. Staff interviewed during the audit indicated that a materials transport hazard analysis was recently undertaken by KCC. Relevant procedures were apparently also compiled to reduce and control the risk of future acid spills by, for example: auditing suppliers against minimum safety and transport operating standards; operating with two drivers on a shift basis; and making available an emergency response vehicle to cope with incidents. Neither the hazard analysis nor the spills procedures were sighted during the audit.

- **Resettlement (Equator Principle 3, IFC PS 5):** There are no plans to re-locate any of the surrounding communities and no foreseeable operational requirements to do so.

- **Community Grievances (Equator Principle 6):** Community issues and concerns appear to have been meticulously managed in 2010 through the communication and grievance procedures set up by the Community Development Department. The main grievances identified appear to be as a result of blasting and mine waste disposal at T-17 Open Pit and KOV Open Pit, which affects the nearby Musonoi community. A number of households claim that blasting has caused cracking of their houses and dust is an issue in the dry season. Actions to evaluate and resolve this issue include periodical mapping of structural damage to buildings, damage compensation where appropriate, and the following of operational procedures to reduce these impacts.

- Overall compliance (social**):** GAA agree with Metago's conclusion that the EIS forms an acceptable basis for the social and environmental management of the mine in the future. Fully implemented, the EIS and EMP will guide the actions necessary to comply with world standards, including Equator Principles and IFC performance standards.

- Sufficient financial and human resources have been allocated to ensure the effective implementation of the EMS, once finalised

- With regard to social compliance, KCC's Community Development Department has significant capacity, is appropriately structured to manage social issues going forward and has demonstrated capability to implement KCC's Corporate Responsibility Programme.

- A key challenge facing this department will be to continue to develop relationships and goodwill in surrounding communities, whilst minimising unrealistic expectations.

- At present, there appears to be no material grievances in surrounding communities that could place mining at risk.

8.8 Summary of Key Audit Findings

The limitations of this audit notwithstanding, the following observations were noted:

- KCC holds the requisite operating licences that it requires for all of its concessions.
- Environmental (current and potential) impacts were identified that may represent a risk to KCC operation and to compliance with the Equator Principles.
- These impacts relate primarily to the following:
  - Current and historic discharges of tailings and process effluents to the Luilu River, which represent a significant risk to KCC. However this is in the context of a separation of liability between KCC and GCM as detailed in the Amended Joint Venture Agreement `
  - Discharge of KOV Open Pit water to the Musonoi River, which is subject to remedial action already being taken.
  - Nuisance impacts to community villages associated with dust fall and blasting vibrations, which is also subject to remedial action already being taken.
  - Potential exposure of communities (and particularly artisanal miners) to radioactivity. This is a historical and legacy issue associated with GCM and not a KCC liability.
  - Cost liabilities for rehabilitation and closure, including WRD's and historical contamination sites.
  - The lack of an appropriate facility for the safe disposal of hazardous wastes from the Luilu Refinery and KTC - these are being dealt with appropriately and are not in violation of any statute or regulation.
  - The unquantified risk of generating acid rock drainage from future mining of sulphide ores.
- In regards to KCC management of environmental and social issues:
  - The Environmental Department is being ramped up to implement the EMS.
  - The organisational structure, staffing, budget and practices of the Community Development Department work well. There appears to be good interface with local communities and projects focus clearly on community needs.

8.9 References

1) Metago (2009). Katanga Mining Limited Due Diligence Environmental and Mine Waste Review. Report Number C001-02-01, February 2009.

2) SRK (2010). Kamoto Project: Environmental Impact Study and Environmental Management Plan for the Project. SRK Report 411167/1, March 2010.

3) C.G.E.A./A.P.KAT (2010). Letter: Evaluation de la Radioactivité et Programme de Radioprotection dans les Installations Minières et Radiologiques de KAMOTO COOPER COMPANY. République Démocratique du Congo, Commissariat Général à l'Energie Atomique / Antenne Provinciale du Katanga (C.G.E.A./A.P.KAT), 20 Mai 2010.

4) KCC (October 2009). Site environmental incident register: November 2008 to October 2009.

5) KCC (October 2010). Site environmental incident register: November 2009 to October 2010.

6) KCC Luilu Metallurgical Laboratory Excel spreadsheet: "Water results up to March 2010" (Water sample quality laboratory data from various locations for the period May 2009 to March 2010).

7) KCC Luilu Metallurgical Laboratory Excel spreadsheet: "Dust samples 2010" (Monthly KCC dust fall monitoring data for the period January to September 2010).

8) SRK (2009). An Independent Technical Report on the Material Assets of Katanga Mining Limited, Katanga Province, Democratic Republic of Congo ("DRC"). SRK Project: 389772, 17 March 2009.

9) Talbot & Talbot Laboratories water quality analytical data reports dated as follows:

   a) Report: Katanga 8636/10 R1, dated 24 June 2010 (samples collected 27 May 2010);

   b) Report: Katanga 11806/10, dated 16 August 2010 (samples collected 14 to 20 July 2010); and

   c) Report: Katanga 13881/10, dated 16 September 2010 (samples collected 1 to 2 September 2010);

9.0 MARKET

9.1 Copper

Copper is a major industrial metal (ranking third after iron and aluminium by consumption) because it is highly conductive (electrically and thermally), highly ductile and malleable, and resistant to corrosion. Electrical applications of copper include power transmission and generation; building wiring; motors; transformers; telecommunications; electronics and electronic products; and renewable energy production systems. Copper and brass (an alloy of copper) are the primary metal used in plumbing pipes, taps, valves and fittings. Further applications of copper include decorative features; roofing; marine applications; heat exchangers; and in alloys used for gears, bearings and turbine blades.

Global copper mine production was 15.7Mt in 2009, with 5.4Mt (or 35%) produced in Chile, by far the largest producer. Zambia and the DRC produced 0.6Mt (3.8%) and 0.3Mt (1.9%) respectively. Global refinery production in 2009 was 18.4Mt, including 2.9Mt of secondary refined production. Global consumption was slightly lower at 18.2 Mt. The International Copper Study Group (1 October 2010) estimates global mine production for 2011 at 17Mt, with global consumption at 19.7Mt. Table 59 shows the historical and 2011 forecast global refined copper market balance.

Table 59: Global refined copper market balance (Source: USGS)

Thousand metric tonnes	2006	2007	2008	2009	*2010 Jan-Sept*	2010 forecast	2011 forecast
Global Mine Production	14 991	15 474	15 528	15 754	*11 853*	16 235	17 076
Primary Refined Production	14 678	15 191	15 399	15 466	*11 729*		
Secondary Refined Production	2 613	2 743	2 823	2 911	*2 513*		
Total World Refined Production	17 291	17 934	18 222	18 377	*14 242*	19 278	20 498
Consumption	17 058	18 239	18 056	18 198	*14 678*	18 882	19 729
LME Copper Price (USD/t avg)	6 727	7 126	6 952	5 164	*7 175*	7 543	

The copper price has demonstrated significant volatility in the last 5 years, as shown in Figure 42. The price was USD4 585/tonne on 1 January 2006, at that point a near-record high. The price rapidly increased, reaching a high of USD8 800 /tonne in May 2006. By February 2007 it had declined to USD5 302 /tonne. In the immediate wake of the collapse in the housing bubble that precipitated the global financial crisis, the price of copper increased, reaching a new high of USD8 900 /tonne by July 2008. Thereafter, as the financial crisis took effect on the global economy, the price declined to USD2 810 /tonne in December 2008, the

lowest level in almost 5 years. Since then, the price has generally trended upward, reaching a new record high of USD9 695 /tonne on 12 January 2011.

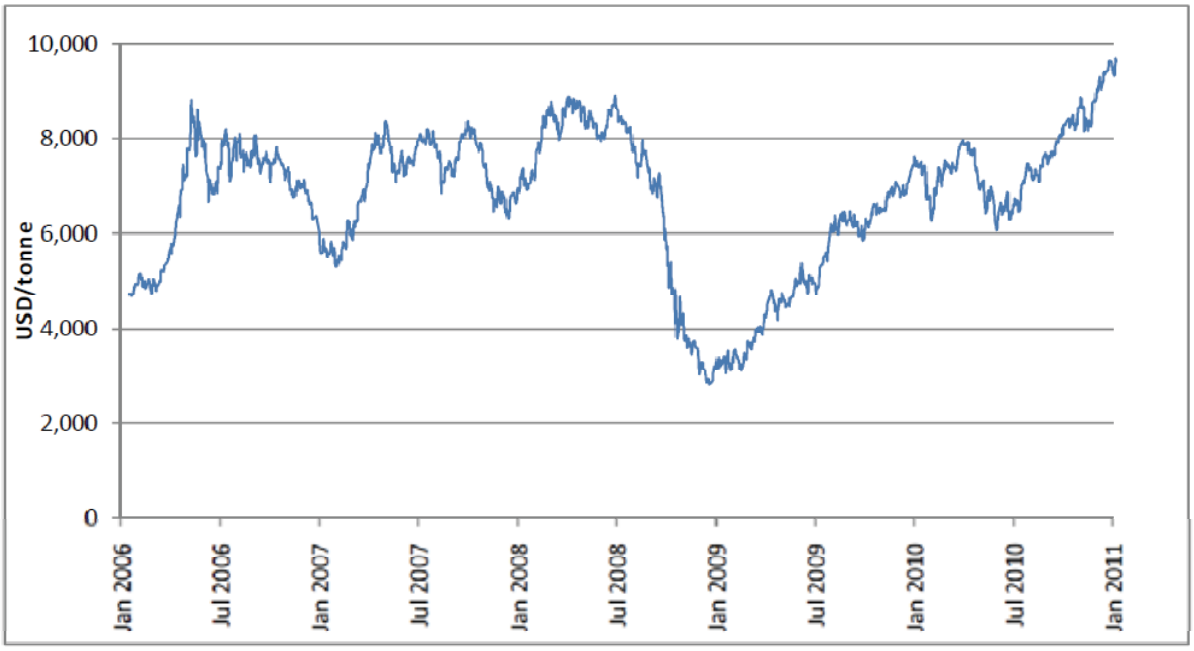

Figure 42: The London Metal Exchange copper price from January 2006 to date (Source: LME)

The copper price forecast used in the economic evaluation of the project is shown in Table 60. The forecast is based on published London Metal Exchange (LME) monthly futures prices, using the June contracts as the basis for each respective year through to 2019. These publically available prices are quoted in nominal terms. The financial model used for the economic evaluation is in real terms (2011 USD), and the real copper price forecast is derived from the nominal prices using the US CPI estimates in Table 60. The forecast nominal average price for 2011 is USD9 600 /tonne, declining to USD6 800 /tonne in 2019.

Table 60: Copper price forecast

Copper price (USD/tonne)	2011	2012	2013	2014	2015	2016	2017	2018	2019	Long Term
Nominal	9,600	9,300	9,000	8,600	8,200	7,800	7,500	7,100	6,800	6,861
Real	9,600	9,208	8,822	8,347	7,880	7,240	6,859	6,397	6,036	6,000
US CPI	1.0%	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%	1.5%	1.5%	

9.2 Cobalt

Cobalt has many commercial, industrial and military applications. The leading use of cobalt is in rechargeable battery electrodes. The temperature stability and heat- and corrosion-resistance of cobalt-based superalloys makes them suitable for use in turbine blades for jet turbines and gas turbine engines. Other uses of cobalt include vehicle airbags; catalysts for the petroleum and chemical industries; cemented carbides and diamond cutting and abrasion tools; drying agents for paints, varnishes, and inks; dyes and pigments; ground coats for porcelain enamels; high-speed steels; magnetic recording media; magnets; and steel-belted radial tyres.

Far less cobalt is produced than copper: global mine production of cobalt was 62 000 tonnes in 2009, with 25 000 tonnes (or 40%) produced in the DRC, the largest producer. Australia, China and Russia each

produced about 6 200 tonnes (10%). Global refinery production in 2008 was 57 600 tonnes, with global consumption slightly higher at 60 654 tonnes. Table 61 shows the historical global refined cobalt market balance. Roskill Information Services, a mineral industry information research group, has forecast cobalt demand of 72 500 tonnes in 2011 (October 2010).

Table 61: Global refined cobalt market balance

Metric tonnes	2004	2005	2006	2007	2008	2009
Global Mine Production	60 300	66 200	69 800	72 600	75 900	62 000
Total World Refined Production	48 500	54 100	53 800	53 300	57 600	No publicly available data
Consumption	51 400	54 685	54 685	56 250	60 654	59 000
Cobalt Price (USD/t avg)	22.77	14.56	15.35	28.31	36.16	15.89

Source Cobalt News (Oct 2005 – Jan 2011) Published by the Cobalt Development Institute

The cobalt price reached a record of USD48.63 /pound in March 2008, falling in line with other commodities to a 5-year low of USD11 /pound in December 2008. The price has recovered, and since cobalt started trading on the LME in May 2010, the price has averaged USD17.55 /pound, with a maximum of USD19.64 /pound and a minimum of USD15.94 /pound.

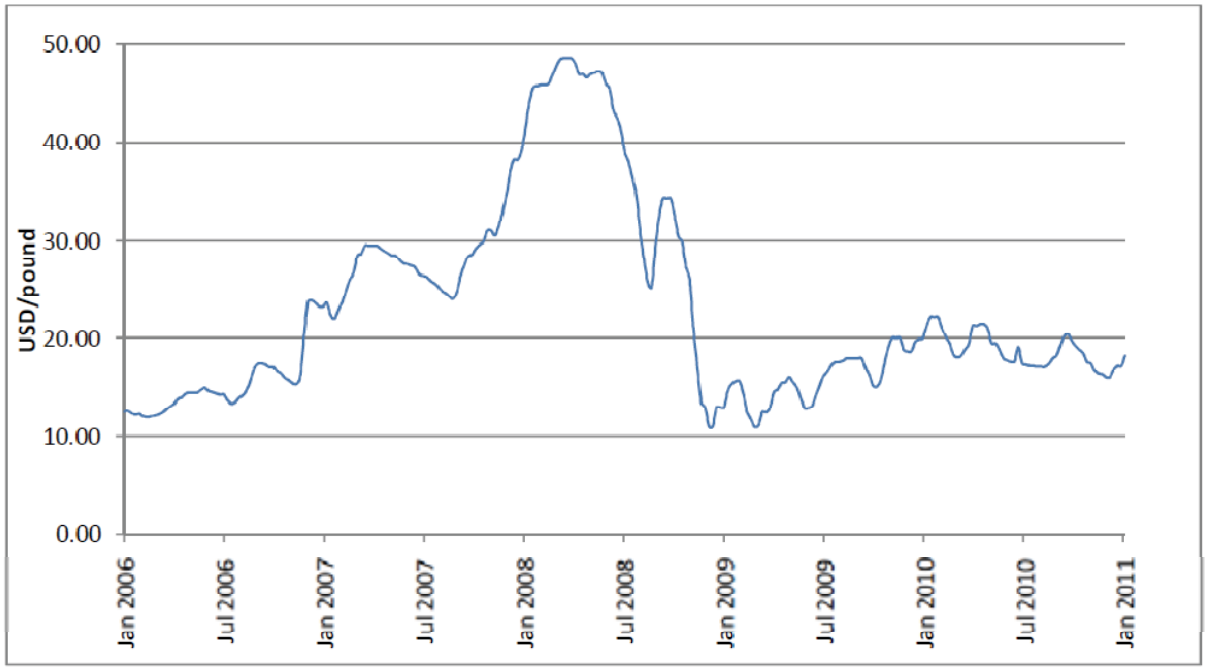

Figure 43: The cobalt price from January 2006 to date (Source: Inet Bridge)

The cobalt price forecast used in the economic evaluation of the project is shown in Table 62. The forecast is based on the Metal Bulletin 99.8%Co USD/pound price (in nominal terms) available for the next spot delivery. The forward curve is assumed to gradually decline for the next three years, before falling to its long term value. The financial model used for the economic evaluation is in real terms (2011 USD), and the real cobalt price forecast is derived from the nominal prices using the US CPI estimates in Table 62. The forecast average price for 2011 is USD17.24 /pound, declining to USD13.00 /pound in 2019.

Table 62: Cobalt price forecast

Cobalt price (USD/pound)	2011	2012	2013	2014	2015	2016	2017	2018	2019	Long Term
Nominal	17.24	16.78	16.00	15.00	15.00	15.00	13.00	13.00	13.00	13.00
Real	17.24	16.62	15.68	14.56	14.41	13.92	11.89	11.71	11.54	11.00
US CPI	1.0%	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%	1.5%	1.5%	

10.0 TECHNICAL AND ECONOMIC ASSUMPTIONS

10.1 Revenue assumptions

KML has entered into offtake agreements with Glencore International AG, pursuant to which Glencore will buy 100% of the quantities of Cu and Co produced by KCC over the life of the mine. The offtake agreements are negotiated at arm's length at standard market terms.

10.2 Capital Cost Estimate

A summary of the capital cost estimate by major cost items is presented in Table 63 below. The capital expenditure items are as follows:

- **KTO Mine:** Capital expenditure is for the purchase of underground mining equipment to meet LOM plans, development costs to access mining areas and ventilation infrastructure;
- **KOV Open Pit:** Capital expenditure includes waste stripping to access the ore body;
- **Kamoto East Underground Mine:** Initial capital is for the development from the KTO Mine through to the new mine. Thereafter, capital expenditure is for the purchase of mining equipment required to meet LOM plans, development costs to access mining areas and ventilation infrastructure;
- **T-17 Underground Mine:** Initial capital is for the development of a portal from surface. Thereafter, capital expenditure is for the purchase of mining equipment required to meet LOM plans, development costs to access mining areas and ventilation infrastructure;
- **Mashamba East Mine:** Capital expenditure is for the purchase of mining equipment required to meet LOM plans;
- **Processing plant:** Capital expenditure is for the development of the processing plant as described in Section 5.0;
- **Effluent Ponds and Tailings:** Capital expenditure is for the development of the ponds and tailings facilities as described in Section 6.0;
- **Power:** Capital expenditure is for the development and refurbishment of power supply infrastructure as described in Section 12.2;
- **Environmental and Social:** Expenditure is for Far West Tailings Dam stakeholder engagement, jobs and economic opportunities, tarring of roads (to reduce dust and road safety hazards), dust monitoring equipment, equipment for sulphur dioxide emission reductions/monitoring, surface water management (containment an management), general and hazardous waste management (trenches and buildings), ad hoc equipment for ground water ; water settlement facilities for suspended solids radiation monitoring and survey equipment, emergency response equipment and vehicles; and
- **General:** Capital expenditure is for unallocated infrastructure of a general nature required to sustain the operations of KCC.

Table 63: Capital Expenditure

USD million	2011	2012	2013	2014	2015	2016 - 2035	Total
Mining							
KTO	30.9	30.9	30.9	23.8	11.8	91.0	**219.2**
KOV Open Pit mobile mining fleet proceeds on sale	-28.0	0.0	0.0	0.0	0.0	0.0	**-28.0**
KOV Open Pit pre-stripping, dewatering and other	13.5	5.0	5.0	20.8	16.8	0.0	**61.0**
Mashamba East	0.0	8.0	12.4	21.5	31.2	8.7	**81.8**
Kamoto East Underground	0.0	0.0	0.0	0.0	0.0	343.8	**343.8**
T-17 Underground	0.0	0.0	0.0	0.0	6.4	220.9	**227.2**
Mining subtotal	**16.4**	**43.9**	**48.2**	**66.1**	**66.1**	**664.3**	**905.0**
Processing							
Phase 3	103.0	0.0	0.0	0.0	0.0	0.0	**103.0**
Phase 4	107.4	204.9	224.9	0.0	0.0	0.0	**537.2**
Processing subtotal	**210.4**	**204.9**	**224.9**	**0.0**	**0.0**	**0.0**	**640.2**
Other Cost Centres							
Tailings	5.1	15.1	15.1	15.0	12.7	113.5	**176.4**
Environmental and social costs	10.0	10.0	10.0	10.0	10.0	147.5	**197.5**
Power	50.0	53.2	47.6	16.4	6.4	58.1	**231.7**
General capital expenditure	28.5	26.4	25.0	25.0	25.0	368.8	**498.6**
Other subtotal	**93.6**	**104.6**	**97.7**	**66.4**	**54.1**	**687.8**	**1 104.2**
Total capital expenditure	**320.4**	**353.4**	**370.8**	**132.5**	**120.2**	**1 352.0**	**2 649.4**

10.3 Operating Cost Estimate

The major operating costs are as follows:

- **Open Pit and Underground Mining:** these costs include:
  - **KTO Mine:** the costs are based on current and budgeted costs as an owner operation. The weighted average cost applied over the LOM is USD 29.46/t ore mined;
  - **KOV Open Pit:** the costs are based on contractual mining contractor rates charged by Enterprise Generale Malta Forrest, a mining contractor, and includes USD 6.23/bcm for mining and USD 2.27/t ore for haulage;
  - **T-17 Open Pit:** the costs are based on contractual mining contractor rates charged by Enterprise Generale Malta Forrest, and are USD 7.70/bcm for mining and USD 2.70/t ore for haulage;
  - **Kamoto East Underground Mine:** the costs are based on estimated costs as an owner operation. The weighted average cost applied over the LOM is USD 26.50/t ore mined;
  - **T-17 Underground Mine:** the costs are based on estimated costs as an owner operation. The weighted average cost applied over the LOM is USD 28.47/t ore mined;

- **Mashamba East Open Pit:** the costs are based on a contractor performing the works. The weighted average cost applied over the LOM is USD 29.30/t ore mined;

- **Kamoto Concentrator:** this includes plant costs for reagents, consumables and electricity, and is based on fixed costs of USD 13 million per annum and variable costs of USD 1.91/t ore feed for the sulphide circuit and USD 11.65 ore feed for the oxide circuit;
- **Luilu Refinery:** this includes USD 0.19/lb for finished Cu and USD 0.11/lb for finished Co, excluding acid and lime costs;
- **General and Administration:** this includes head office and other centralised costs; and
- **Freight, Insurance and Sales:** this is based on the expected costs of transporting all finished products (Cu and Co) through Durban (the FOB point) either to Europe or the Far East.

The major operating items are detailed on an annual basis in Table 64 below.

Table 64: Major Operational Expenditure

USD million	2011	2012	2013	2014	2015	2016 - 2035
Operating Costs						
Open Pit and Underground Mining	139.3	209.9	203.4	202.1	248.4	3 213.2
Luilu Refinery	108.9	142.4	120.5	62.3	107.3	1 868.9
Kamoto Concentrator Costs	59.3	53.5	55.4	76.7	100.9	1 538.6
Phase 4 Refinery	0.0	0.0	29.6	117.0	113.4	1 820.8
Tailings	0.7	0.7	0.9	1.2	1.7	247.8
Total Operating Costs	**308.3**	**406.4**	**409.8**	**459.3**	**571.7**	**8 689.3**
General and Administrative Costs	**81.5**	**78.5**	**76.9**	**71.4**	**66.8**	**1 348.8**

10.4 Taxation, Royalties and Other Business Parameters

The major parameters which govern royalties, tax capital allowances and import duties applicable to the project are shown in Table 65.

Table 65: Royalty, tax and import duty assumptions

Description	Application	Rate
DRC Royalty	% of revenue less selling expenses	2.0%
GCM Royalty	% of revenue less selling expenses	2.5%
DRC Corporate Tax		30%
DRC Capital Allowance:		
Year 1		60%
Years 2 - 10	Reducing balance	12% to 1%
Import Duty	Charged on certain imported items	3% to 5%

According to DRC legislation, taxation can be offset against capital and deferred. All capital expenditure is subject to a DRC Capital Allowance of 60% in the first year and is depreciated on a reducing balance each year thereafter. Pas de porte payments are required to be made to Gecamines, and USD 85.5 million has been budgeted to 2016.

11.0 ECONOMIC ANALYSIS

This section presents a valuation of Katanga Mining Limited's (KML) interest in KCC. KML owns 75% of KCC via various subsidiaries, while GCM owns 25%. GCM is entitled to receive royalty, dividend and Pas de porte payments from KCC over the life of the mining project. The valuation presented is of the value of KCC attributable to KML. KML's interest in KCC comprises the 75% shareholding and shareholder's loans.

11.1 Valuation Methodology

KCC is an operational mining company with several active mines. Its resources and reserves are well-defined, and a comprehensive body of technical and financial information on its current and planned operations is available. This information allows the future cash flows of KCC throughout the life of the mine to be projected. This is compatible with the discounted cash flow ("DCF") methodology, which determines the value of an asset by calculating the net present value of the future cash flows over the useful life of that asset.

The DCF valuation approach provides a "going concern" value, which is the value indicated by a company's future economic capabilities. Using this technique, value is calculated by the summation of the present value of projected cash flows, both income and expenditure, for a determined period, plus the present value of the residual or terminal value at the end of the projection period. When using the DCF technique, the following four key areas must be assessed for accuracy and appropriateness:

- The assumptions underlying the projection of cash flow;
- The length of the projection period, in this case the life of mine;
- The residual or terminal value at the end of the projection period; and
- The discount rate, which is usually the risk adjusted weighted average cost of capital ("WACC") of the project.

The valuation was based a financial model provided by KML. GAA verified the integrity and structure of the model to ensure that calculations are performed correctly and that the model is comprehensive and fully accounts for all cash flows of the project. The input assumptions of the model were checked against historical performance, contracts and the results of the studies by the Competent Persons who produced this report to ensure that the assumptions are reasonable. Additional analysis was added to the model to produce some of the results, graphs and tables presented in this report.

11.2 Valuation Assumptions

The following assumptions were used in the valuation model:

- The valuation date is 1 January 2011;
- The discount rate is set at 10% in real terms, which is the discount rate used by Glencore across its portfolio. The valuation model was prepared on a quarterly basis.
- Mining and processing production rates, head grades and recoveries are as described in Sections 4.0 and 5.0:
- Commodity prices are as described in Section 9.0;
- Capital expenditure is as described in Section 10.2;
- Operating expenditure is as described in Section 10.3;
- Royalties, tax, capital allowances and exchange rates are as described in Section 10.4;
- KML's equity share in KCC is 75%; and

- KML's attributable economic interest in KCC is derived after the deduction of cash flows attributable to GCM from KCC's free cash flow.

11.3 The Valuation of KML's Interest in KCC

The results of the DCF model are shown in Table 66, presenting the free cash flow attributable to KML. The cash flow projections are based on expected future mining, production, metal sales, capital expenditure, operating costs and other expenses over the life of the project.

KATANGA MER EXTRACTION TABLE

*Capacities refer to annualized capacity at year end - 31 December

* Overall plant recovery is 85% for Copper and 65% for Cobalt

		2008	2009	2010	2011	2012	2013	2014	2015
Finished metal production capacity	**Units**								
Copper	t	40 800	70 000	130 000	150 000	150 000	200 000	250 000	310 000
Cobalt	t	2 050	3 240	5 500	8 000	8 000	8 000	8 000	8 000
Cobalt Hydroxide	t						22 000	22 000	22 000
Finished metal actual / forecast production									
Copper	t	22 122	41 964	52 179	110 414	150 000	174 546	246 669	308 194
Cobalt	t	749	2 534	3 437	5 017	6 995	6 807	8 000	8 000
Cobalt Hydroxide	t						2 821	9 574	6 869
Copper contained in concentrate for sale	t	-	1 773	6 054	21 881	-	-	-	-
Cobalt contained concentrate for sale	t	1 776	-	-	-	-	-	-	-
Cash cost (excl. royalties, realisation charges, before by-product revenues)	US$m	276	286	291	388	483	485	529	637
By-products revenues	US$m	164	77	155	343	251	294	451	391
Royalties (as a % of net revenue)	%	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Depreciation & amortisation	US$m	364	287	200	310	371	323	214	179
Statutory Tax rate	%	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Capex									
Sustaining	US$m	119	18	56	60	87	86	95	83
Expansionary	US$m	319	100	165	260	266	285	38	38

Production Numbers - Mining

		2008	2009	2010	2011	2012	2013	2014	2015
KTO	Unit								
Mined ore	t	551 333	1 094 088	1 309 735	1 308 520	1 708 720	1 822 924	1 846 355	2 258 118
Cu grade	%	3.93	3.85	3.82	3.80	3.88	3.94	3.89	3.67
Co grade	%	0.43	0.49	0.56	0.49	0.57	0.58	0.57	0.57
KOV									
Mined ore	t	-	-	722 324	1 517 348	2 364 753	3 336 993	5 164 689	6 176 646
Cu grade	%	-	-	4.43	4.81	5.02	5.11	4.21	3.81
Co grade	%	-	-	0.30	0.38	0.39	0.35	0.22	0.15
T-17									
Mined ore	t	479 543	1 687 978	1 944 742	1 100 000	370 000	-	-	-
Cu grade	%	1.72	1.30	2.55	2.57	2.93	-	-	-
Co grade	%	0.89	0.85	0.95	0.46	0.44	-	-	-
Tilwezembe									
Mined ore	t	609 792	-	-	-	-	-	-	-
Cu grade	%	1.39	-	-	-	-	-	-	-
Co grade	%	1.17	-	-	-	-	-	-	-
Mashamba East									
Mined ore	t	-	-	-	-	-	-	-	994 510
Cu grade	%	-	-	-	-	-	-	-	4.14
Co grade	%	-	-	-	-	-	-	-	0.10

Production Numbers - KTC

		2008	2009	2010	2011	2012	2013	2014	2015
Sulphide circuit	Units								
Capacity *	t	840 000	1 680 000	2 520 000	2 520 000	2 520 000	2 520 000	2 520 000	2 520 000
Actual Milled KTO ore	t	562 833	1 099 902	1 324 782	1 308 520	1 708 720	1 822 924	1 846 355	2 258 118
Cu grade	%	3.80	3.70	3.73	3.80	3.88	3.94	3.89	3.67
Co grade	%	0.40	0.47	0.54	0.49	0.57	0.58	0.57	0.57
Sulphide Concentrate produced	t	48 909	92 477	113 678	113 122	134 175	145 767	145 892	170 383
Cu grade	%	40.80	40.70	39.56	40.00	42.00	42.00	42.00	42.00
Co grade	%	4.40	5.00	5.66	3.70	4.70	4.70	4.70	4.90
Oxide and Mixed Circuit									
Capacity *	t	840 000	1 440 000	3 000 000	5 160 000	5 160 000	5 160 000	7 680 000	7 680 000
Actual Milled T-17 ore	t	437 754	885 318	1 236 354	2 195 060	827 389	-	-	-
Cu grade	%	2.70	2.34	2.45	1.99	2.30	-	-	-
Co grade	%	0.70	0.76	0.95	0.70	0.70	-	-	-
Actual Milled KOV ore	t	-	-	364 455	1 561 348	2 364 753	3 336 993	5 164 689	6 176 646
Cu grade	%	-	-	4.43	4.81	5.02	5.11	4.21	3.81
Co grade	%	-	-	0.30	0.38	0.39	0.35	0.22	0.15
Actual Milled Mashamba East ore	t	-	-	-	-	-	-	-	994 510
Cu grade	%	-	-	-	-	-	-	-	4.14
Co grade	%	-	-	-	-	-	-	-	0.10
Actual Milled Total ore	t	437 754	885 318	1 600 809	3 756 408	3 192 142	3 336 993	5 164 689	7 171 156
Cu grade	%	2.72	2.34	2.78	3.16	4.32	5.11	4.21	3.86
Co grade	%	0.74	0.76	0.63	0.57	0.47	0.35	0.22	0.14
Oxide Concentrate produced	t	55 323	97 495	189 386	447 576	426 574	347 384	452 004	687 917
Cu grade	%	16.87	16.95	18.20	22.50	24.00	24.00	24.00	24.00
Co grade	%	3.30	3.76	2.83	2.40	1.70	1.70	1.70	0.70
Sulphide Concentrate produced	t					38 619	154 580	183 127	170 318
Cu grade	%					42.00	42.00	42.00	42.00
Co grade	%					2.30	2.10	1.60	1.10

Production Numbers – Kolwezi Concentrator ("KZC") (No longer an asset of KCC - returned to Gecamines)

		2008	2009	2010	2011	2012	2013	2014	2015
Capacity	**Unit**								
Actual Milled Tilwezembe ore	t	555 753	-	-	-	-	-	-	-
Cu grade	%	1.84	-	-	-	-	-	-	-
Co grade	%	0.83	-	-	-	-	-	-	-
Concentrate produced	t	36 573	-	-	-	-	-	-	-
Cu grade	%	12.31	-	-	-	-	-	-	-
Co grade	%	4.87	-	-	-	-	-	-	-

Table 66: Project cash flows over the LOM

Cash Flow Analysis	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Revenue	**MUSD**	**1,365**	**1,583**	**1,795**	**2,497**	**2,789**	**2,637**	**2,609**	**2,455**	**2,324**	**2,320**	**2,318**
Freight, Insurance and Sales Costs	MUSD	(151)	(123)	(145)	(208)	(243)	(247)	(263)	(261)	(258)	(262)	(262)
Royalties		(55)	(66)	(74)	(103)	(83)	(78)	(106)	(99)	(93)	(93)	(93)
Net Revenue	**MUSD**	**1,160**	**1,394**	**1,575**	**2,185**	**2,464**	**2,313**	**2,240**	**2,095**	**1,973**	**1,966**	**1,964**
Operating Costs	MUSD	(388)	(483)	(485)	(529)	(637)	(606)	(648)	(651)	(656)	(696)	(676)
Other Costs	MUSD	(47)	(17)	(17)	(17)	(17)	(17)	(2)	(2)	(2)	(1)	(1)
Net change in working capital	MUSD	24	(28)	(84)	10	(36)	15	(3)	10	8	(7)	8
Total Expenses	**MUSD**	**(411)**	**(528)**	**(586)**	**(536)**	**(690)**	**(608)**	**(652)**	**(642)**	**(650)**	**(704)**	**(669)**
Taxation	MUSD	(1)	(2)	(2)	(284)	(653)	(544)	(452)	(414)	(359)	(330)	(335)
Capital Expenditure	MUSD	(320)	(353)	(371)	(133)	(120)	(89)	(105)	(119)	(97)	(110)	(103)
Gécamines Dividends	MUSD	(11)	(21)	(15)	(74)	(91)	(158)	(260)	(236)	(218)	(205)	(209)
Net Free Cash	**MUSD**	**416**	**490**	**601**	**1,159**	**910**	**915**	**771**	**683**	**649**	**617**	**647**

Cash Flow Analysis	Unit	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenue	**MUSD**	**2,354**	**2,362**	**2,369**	**2,363**	**2,332**	**2,273**	**2,258**	**2,167**	**1,843**	**–**	**–**
Freight, Insurance and Sales Costs	MUSD	(266)	(267)	(268)	(267)	(264)	(257)	(255)	(243)	(204)	–	–
Royalties		(94)	(94)	(95)	(94)	(93)	(91)	(90)	(87)	(74)	–	–
Net Revenue	**MUSD**	**1,993**	**2,000**	**2,007**	**2,002**	**1,975**	**1,925**	**1,913**	**1,837**	**1,565**	**–**	**–**
Operating Costs	MUSD	(702)	(734)	(724)	(703)	(698)	(680)	(670)	(577)	(480)	–	–
Other Costs	MUSD	(2)	(1)	(1)	(2)	(1)	(1)	(2)	(1)	(1)	(57)	(56)
Net change in working capital	MUSD	(7)	(1)	4	4	3	9	(0)	35	24	192	–
Total Expenses	**MUSD**	**(711)**	**(736)**	**(722)**	**(701)**	**(697)**	**(673)**	**(672)**	**(543)**	**(457)**	**135**	**(56)**
Taxation	MUSD	(356)	(355)	(346)	(362)	(369)	(354)	(342)	(348)	(358)	(263)	–
Capital Expenditure	MUSD	(103)	(94)	(87)	(76)	(77)	(75)	(83)	(77)	(56)	–	–
Gécamines Dividends	MUSD	(206)	(204)	(211)	(213)	(209)	(207)	(202)	(218)	(176)	(72)	–
Net Free Cash	**MUSD**	**618**	**611**	**641**	**650**	**622**	**616**	**615**	**652**	**517**	**(200)**	**(56)**

The base case DCF model uses the values of the input parameters as described in Section 4.0. The base case valuation of KML's interest in KCC is USD 6 008 million, with an upper limit of USD 6 860 million (discount rate of 8%, reflecting a high outlook) and a lower limit of USD 4 744 million (discount rate of 14%, reflecting a low outlook).

Table 67 to Table 69 present the sensitivity of the NPV to changes in the discount rate applied and revenue, capital expenditure and operating costs respectively.

Table 67: Sensitivity of NPV to discount rate and changes in metal prices

NPV (USD million)		*Change in metal prices*				
		-20%	**-10%**	**0%**	**10%**	**20%**
Discount Rate	8.0%	4,582	5,717	6,860	7,935	8,987
	10.0%	4,012	5,008	6,008	6,946	7,859
	12.0%	3,547	4,431	5,315	6,142	6,944
	14.0%	3,162	3,954	4,744	5,481	6,193

Table 68: Sensitivity of NPV to discount rate and changes in operating costs

NPV (USD million)		*Change in operating costs*				
		-20%	**-10%**	**0%**	**10%**	**20%**
Discount Rate	8.0%	7,513	7,155	6,860	6,511	6,210
	10.0%	6,525	6,265	6,008	5,704	5,442
	12.0%	5,769	5,541	5,315	5,047	4,816
	14.0%	5,147	4,945	4,744	4,505	4,299

Table 69: Sensitivity of NPV to discount rate and changes in capital expenditure

NPV (USD million)		*Change in capital expenditure*				
		-20%	**-10%**	**0%**	**10%**	**20%**
Discount Rate	8.0%	6,986	6,967	6,860	6,752	6,641
	10.0%	6,128	6,108	6,008	5,908	5,805
	12.0%	5,429	5,409	5,315	5,220	5,124
	14.0%	4,854	4,833	4,744	4,654	4,564

The sensitivity of the base case valuation to all three factors is shown graphically in Figure 44.

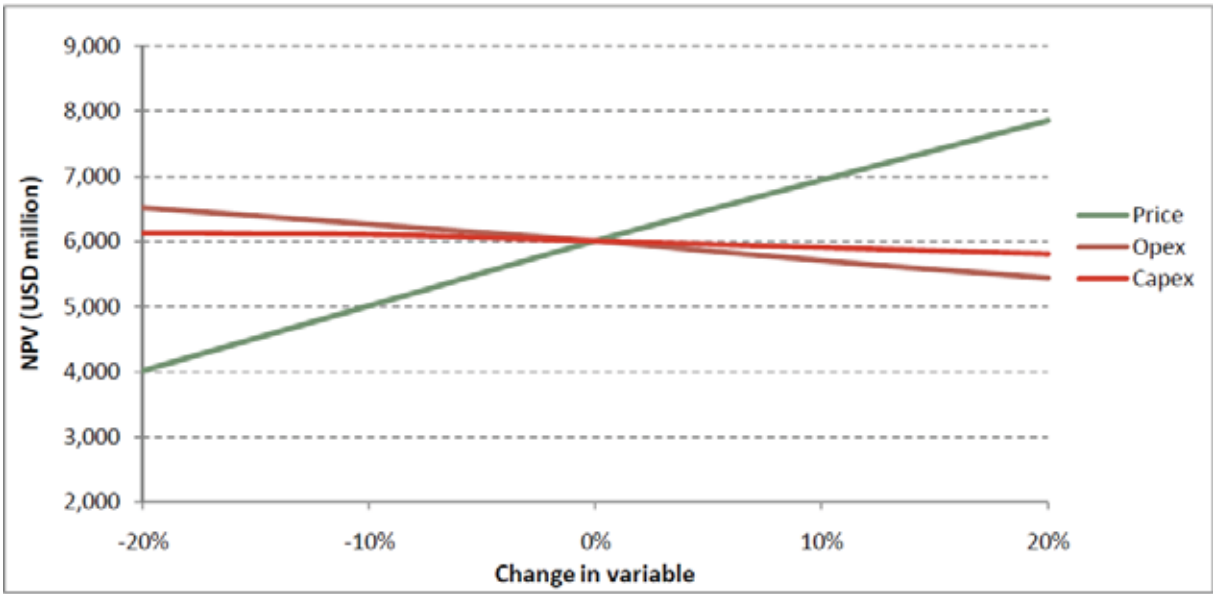

Figure 44: The sensitivity of Base Case NPV to changes in metal price, opex and capex

The project is most sensitive to metal prices – a 1% increase/decrease in metal prices causes a USD 103 million increase/decrease in NPV. A 1% increase/decrease in operating costs causes a USD 30 million decrease/ increase in NPV. The project is least sensitive to changes in capital expenditure – a 1% increase/decrease causes a USD 10 million decrease/ increase in NPV.

12.0 RISK ANALYSIS

The risk analysis in this report has two sources.

- The Competent Persons involved in the technical analysis of the project were briefed to identify and document project risks during the course of their work; and
- Risks identified in a previous independent technical analysis of KCC done by SRK Consulting in March 2009 were reviewed and included in this analysis if they were deemed to still be valid.

12.1 Mining risks

The major risks that could have a negative impact on the planned production profile are:

- Dewatering: Initial and continuous dewatering of the KOV Open Pit and Mashamba East open pit is required. The current dewatering strategy has recently been revised to accommodate the pit designs referenced in the 2010 Technical Report and historical hydrogeological data which is difficult to validate. As such, the current dewatering strategy could potentially prove to be not as effective as designed to maintain dry slope conditions. This potentially could introduce risks associated with potential impacts on both the economics of the pit, pit stability and the production schedule. This risk is being mitigated by performing further studies to gain a better understanding of the hydrogeology so that an appropriate dewatering strategy is defined that enables safe mining as cost effectively and efficiently as possible.
- Access and slope failures: KOV Open Pit will develop into a large operation up to 400m deep. Production rates are high with up to 45 million tonnes of material that should be moved from the pit per annum. Small slope failures could have a negative impact on access to the production benches. A strategy should be developed to establish an alternative ramp access to production areas.
- Available pit space: A high production rate requires sufficient working areas or face length. Additional face length should be established and maintained on the southern section of the KOV Open Pit.

- Available waste dumping space: The KOV Open Pit produces 462 million tonnes of waste up to 2030. The available waste dumping space close to the KOV Open Pit is insufficient although as part of the ARJVA additional surface rights have been allocated to KCC to the north of the current KOV Open Pit concession. However, for improved cost efficiency, a detailed technical plan to back fill mining waste into depleted pits should be developed. With the appropriate mining sequence in KOV Open Pit, a total of 150 million tonnes could be back filled while the T-17 open pit is available for back filling from 2013 onwards should the appropriate technical studies be completed.

- Grade control: An operational cut-off grade of 0.6% Cu has been applied to the mining models. Grade control practices for a high volume operation should be developed. Inefficient grade control systems could result in resource losses or that uneconomic production tonnes are processed where the planned revenues does not cover the processing and selling costs.

12.2 Processing risks

Unavailability and Quality of Key Reagents for Metallurgical Processing:

There is a risk that critical process reagents (like lime) may not be available in the required quantities or quality, leading to reduced production of copper and cobalt. This risk has a high rating, but can be managed with a detailed supply management plan

Power Availability and Supply Fluctuations:

Power requirements to operate at the scheduled production profile are approximately 230-250MW and there are risks that this power may not be available through the national grid and may lead to power disruptions or supply fluctuation. KCC has entered into an agreement with the state utility, Société Nationale d'Electricité ("SNEL"), to refurbish the DC link between Kinshasa and Kolwezi SCK / RO stations to increase power availability to KCC to a minimum 160MW in 2011. KCC is also in advanced negotiation with SNEL to provide capital to refurbish additional power infrastructure within the DRC to increase to availability of power supply from the Inga hydroelectricity facility to 450MW to the Katanga Province by 2015.

12.3 Capital risks

Escalation of Costs:

Projects in the mining industry world-wide have recently experienced unpredictable capital cost overruns due to various macroeconomic and microeconomic factors that cannot be predicted with any reliable degree of certainty. Capital cost overruns require more funding and reduce project returns. This risk is rated as high but is being mitigated by management through regular reviews of capital cost estimates by the KCC project team and their appointed independent engineers who provide certified project control software and an extensive an up-to-date database of capital costs for many aspects of the development.

12.4 Operating risks

Poor Condition of Railway Line:

The poor condition of the railway line may impede efficient production by not allowing the efficient, on-time delivery of finished products or the supply of key input materials on time, leading to reduced production of copper and cobalt and higher logistics costs. This risk is rated very high. Possible mitigation measures include:

- Rescheduling production plans to match rail capacity;

- Engaging with governments and railway operators;

- Engaging with other potential rail users; and.

- Resorting to road transportation (at a higher cost) for logistics, although road costs have been factored into the financial model.

Availability of Rolling Stock:

Locomotives and wagons may not be available on time to transport the planned increases in finished products and key input materials, also leading to reduced production of copper and cobalt and higher logistics costs. This risk is rated very high. This risk may be mitigated by establishing required capacity and negotiating with SNCC (the rail operator) and other railway groups to ensure sufficient capacity.

Logistics to and from site present an issue which needs to be carefully planned around and will result in KCC holding a larger than normal critical spares holding, however this has also been factored into the financial model.

Underdeveloped in-country institutional infrastructure and capacity:

The DRC's national and local governments and their agencies may not have the ability to deliver on the infrastructure requirements of the Project, reducing the project feasibility or causing delays. This risk is rated high, and may be mitigated by developing relationships with other stakeholders, governments and agencies; and supporting capacity development initiatives.

Senior Management and Technical Expertise:

Recruiting and retaining senior management and operation-critical technical expertise to manage and operate the mines and processing plants is an issue, rated as a high risk. It potentially affects the ability of the project to run optimally and comply with legislation. Mitigation measures include reviewing the company's employment strategy, recruitment and retention plan; and facilitating the provision of contractor's services with Government and other service providers. KML has appointed a significant proportion of expatriate employees amongst its management level.

Artisanal Miners:

There are a large number of artisanal miners working on the adjacent tailings dam and waste rock dumps. This may create a danger of loss of life and injury through congestion of access roads around site. There may also be loss of production through social unrest if the artisanal miners protest against KCC activities or state legislation to manage their activities.

12.5 Sovereign risk

The DRC has in the past been subject to political and civil unrest. Although such unrest has historically taken place in parts of the country away from KML/KCC's operations which are located in the Kolwezi District of the Katanga Province in the DRC, the DRC (as a whole) continues to be at risk of being affected by varying degrees of political and economic instability in the future which is outside of KML/KCC's control and which may adversely affect KML/KCC's operations in this region. Furthermore, the developing legal system in the DRC may expose KML/KCC's operations in this region to changing new laws and regulations, which may lead to increased operational risks and/or compliance costs.

12.6 Economic and Market risk

Commodity prices:

Copper and cobalt market prices are significant drivers of the profitability for KCC and the value of KML's interest in KCC. These prices are subject to wide fluctuations beyond the control of the company due to factors such as demand for the commodities caused by global economic conditions and prospects, supply from various sources, currency and interest rate changes, and speculative activities. Sustained commodity prices below the costs of production may cause the curtailment or suspension of operations. There is some scope to manage market risk through hedging, but this may lead to loss of upside during periods of high commodity prices.

Operating costs:

Project operating costs also affect the profitability of KML and the value of the KCC project. These are subject to a wide range of pressures such as energy prices, oil prices, chemical prices, labour costs and inflation.

Currency risk:

Project revenues are in USD, but input costs may be in other currencies, specifically South African Rand. Variations in currency exchange rates can affect production costs and affect project profitability.

12.7 Environmental and Social risks

These risks were identified during an environmental and social audit conducted by GAA at KCC on 8 December 2010.

KOV mine dewatering:

The KOV Open Pit mine pit-lake is being dewatered at a rate of 5 000 to 6 000 m^3/hour, and this water is discharged into the Musonoi River. There is a risk of possible elevated concentrations of TSS, %Cu, %Co and %Mn but these are monitored at the point of discharge on a daily basis and to date concentrations have been >98% compliant with DRC legislation.

Dust fallout on communities:

Dust fall out in neighbouring villages exceeds acceptable limits, with environmental incident registers recording community complaints of dust fall. It should be noted that the dust fall from historical GCM waste rock facilities contributes significantly to the overall dust fall out, and dust fall out is also impacted by mining activity from other operators in the area, particularly artisanal miners on the GCM concession area. KCC manages dust fall out from its operations with appropriate dust suppression measures.

Acid rock drainage:

While copper oxide ores are currently being mined at KCC, the underlying sulphide ore may be mined in future, which could result in a potential for acid rock drainage (“ARD”). Although the country rock in the area is dolomitic, and any acid generated is likely to be neutralised, this has not been confirmed. This risk may be mitigated by geochemical testing of mining and waste materials to determine the likelihood and significance of ARD impacts.

Non-compliance with the DRC Mining Code:

If the project does not fulfill the commitments of the recently submitted ESIA which details project development for full compliance of environmental aspects of the DRC Mining Code, the title of the PE’s may be revoked An Environmental Impact Study (“EIS”) and an Environmental Management Plan (“EMP”) which supersede the current existing ESIA submitted and approved for the KCC concession by GCM in 2006 have been compiled for the KCC Project by SRK and have been submitted to the Department for the Protection of the Mining Environment (“DPEM”) in January 2011 for approval, as per the DRC Mining Code and DRC Mining Regulations. Adherence to the EMP once approved should mitigate this risk.

Legacy environmental issues:

In terms of an agreement with GCM, KML is not liable for historical environmental issues preceding the date of transfer of title of the PE's with effect from 04th February, 2004 and these issues **are not regarded as risks**. However, legacy environmental issues exist on the project site and must be managed as they present a risk to the project of non-compliance with the Equator Principles. These include discharges of tailings and process effluents to the Luilu River, potential exposure of communities and artisanal miners to radioactivity, and rehabilitation of historical contamination sites.

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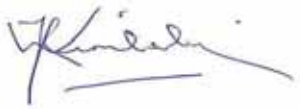

Frank Wimberley
Project Director

Willem van der Schyff
Competent Person

SE/WvdS/kf

Reg. No. 2002/007104/07
Directors: FR Sutherland, AM van Niekerk, SAP Brown, L Greyling

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APPENDIX A

Abbreviations and Glossary of Terms

LIST OF ABBREVIATIONS

Abbreviations

3D	Three dimensional
AAS	Atomic Absorption Spectroscopy
AHK	Alfred H. Knight Laboratory
AICo	Acid-Insoluable Cobalt
AICu	Acid-Insoluable Copper
AJVA	Amended Joint Venture Agreement
ARD	Acid rock drainage
ASCu	Acid Soluble Copper
B RAT	Breche RAT or brecciated RAT
BH	Breche Heterogene or Heterogenous breccia
BOMZ	Black Ore Mineral Zone
CAF	Cut and Fill
CAMI	Cadastre Minier de la Republique Démocratique due Congo
CCIC	Caracle Creek International Consulting (Pty) Ltd (CCIC) - South Africa
CLO	Community Laiason Officers
CMN	Calcaire a Minerais Noirs or Calcareous Unit with Black Minerals
Company	Clencore International PLC
CV	Coefficient of Variation
D Strat	Dolomie Stratifie or Stratified Dolomite
DCF	Discount Cash Flow
DCP	DRC Copper and Cobalt Project SARL
DPEM	Department for the Protection of the Mining Environment
DRC	Democratic Republic of Congo
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMS	Environmental Management System
ERT	Emergancy Response Team
ESIA	Environmental and Social Impact Assessment
EW	Electrowinning
GAA	Golder Associates Africa (Pty) Ltd
GCM	La Generale des Carrieres et des Mines
GEC	Global Enterprises Corporate Ltd
Glencore	Clencore International AG
HG	High Grade
IFC	International Finance Corporation
ITR	Independent Technical Report
IWWMP	Intergrated Water and Waste Management Plan
JORC	Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2004 Edition
KCC	Kamoto Copper Company SARL

KFL	Katanga Finance Limited
KITD	Kamoto Interium Tailings Dam
KML	Katanga Mining Limited
KOV	Kamoto Oliviera and Virgule
KTC	Kamoto Concentrator
KTE	Kamoto East Underground Mine
KTO	Kamoto Underground
LG	Low Grade
Libor	London Interbank Offering Rate
LME	London Metal Exchange
LOM	Life of Mine
Luilu Refinery	Luilu Metellurgical Plant
MAX	Maximum
MER	Mineral Expert's Report
MIN	Minimum
MVT	Mississippi Valley Type
Niknor	Niknor PLC
NPV	Net Present Value
OBI	Lower Ore Body or Ore Body Inferior
OBS	Upper Ore Body or Ore Body Superior
OK	Ordinary Kriging
P&G	Preliminary and General
PE	Permit d'Exploitation
PPCF	Post Pillar cut and fill
QA/QC	Quality Assurance and Quality Control
QC	Quality control
R 1	RAT Lilas
R 2	RAT Grises
R 3	Greyish to dark red or brown stratified shales and micaceous schist
R 4	Altered stratified greyish siliceous dolomitic rock with oolitic horizons and a few bands of light-yellow, talcose schist. Nodules of hematite often occur.
RAP	Room and Pillar
RAT	Roches Argilleuses Talceuse
RATGR	Mineralization in the Rat Grises
ROAN	Roan Series in the Katanga System
ROM	Run of Mine
RSC	Roches Silicieuses Cellulaires or Siliceous Rocks with Cavities
RSF	Roches Siliceuses Feuilletées Foliated (Laminated) and Silicified Rocks
RSV	Read, Swatman & Voigt (Pty) Ltd
SDB	Schistes De Base or Basal Schists
SDS	Shales Dolomitiques Superieurs or Upper Dolomitic Shales

SG	specific gravity
SGS	SGS Consulting (Pty) Lyd
SKM	Heavy vehicle workshops
SLC	Sublevel Caving
SMU	Selective Mining Unit
SNEL	Société Nationale d'Electricité
SNOWDEN	Snowden Mining Services
SRK	SRK Consulting (South Africa) (Pty) Limited
Surpac	GECOM Surpac Mining Planning Software
SX	Solvent Extraction
TDS	Total Disolved Solids
TSF	Tailing Storage Facility
TSS	Total Suspended Solids
UG	underground
WACC	Weighted Average Cost of Capital
Whittle	GEMCOM Whittle Pit Optimisation Software
WRD	Waste Rock Dump

Units

%	percentage
%ASCu	percentage Acid Soluble copper
%CaO	percentage calcium oxide
%Cu	percentage copper
%CuO	percentage copper as oxide
%TCo	percentage total cobalt
%TCu	percentage total copper
±	plus or minus
°	Degrees
kg	Kilogram
km	kilometre
km2	square kilometres
kt	kilo tonne
m	metre
Mt	Million tonnes
Mtpa	Million tonnes per annum
tpa	tonnes per annum
tpd	tonnes per day
tph	tonnes per hour

Chemical Elements

$(Co,Cu)_2S_4$	Chemical composition of carrolite
(Co,Cu,Mn,Fe)O(OH)	Chemical composition of heterogenite
$(Cu,Co)_2(CO_3)(OH)_2$	Chemical composition of kolwezite
(Fe,Co)O(OH)	Chemical composition of goethite

Co	Chemical composition of cobalt
$Co(OH)_2$	Chemical composition of cobalt hydroxide
Cu	Chemical composition of copper
$Cu_2CO_3(OH)_2$	Chemical composition of malachite
Cu_2O	Chemical composition of cuprite
Cu_2S	Chemical composition of chalcocite
$Cu_3(PO_4)(OH)_3$	Chemical composition of cornetite
$Cu_5(PO_4)_2(OH)_4.H_2O$	Chemical composition of pseudomalachite
Cu_5FeS_4	Chemical composition of bornite
CuO	Chemical composition of copper oxide
CuS	Chemical composition of covellite
H_2S	Hydrogen sulphide
Mn	Manganese
$Na_2S_2O_5$	Sodium meta-bisulphite
NaHS	Sodium hydrogen sulphide

GLOSSARY OF TECHNICAL TERMS AND DEFINITIONS

2008 Feasibility Study	Feasibility Study on Kamoto Operating Limited compiled by SRK Consulting (South Africa) (Pty) Limited dated November 2008
2009 Technical Report	SRK Consulting (South Africa) (Pty) Limited Technical Report dated 17 March 2009
2010 Technical Report	Technical report prepared by Katanga Mining Limited, entitled "A Technical Report on the Material Assets of Katanga Mining Limited, Katanga Province, DRC" dated 31 March 2010
Argillaceous	Term describing sedimentary rock with modal grain size in the silt fraction
Arkose	A sandstone with less than 15% matrix material with a quartz and feldspar ratio of at least 25%.
Assay	The chemical analysis of mineral samples to determine the metal content
Basal conglomerate	A conglomerate formed at the earliest portion of a stratigraphical unit
Dip	Angle of inclination of a geological feature/rock from the horizontal
Dolomite	The name of a sedimentary carbonate rock and a mineral, both composed of calcium magnesium carbonate
Diamictite	A sedimentary rock with particle sizes ranging from clay to boulder size
Drill-hole	Method of sampling rock that has not been exposed
D Strat (Stratified Dolomite or Dolomie Stratfie)	This is a well bedded to laminated, argillaceous dolomite, which forms the base of the traditional "Lower Ore Zone" in GCM' nomenclature
Effective Date	Effective date of the Technical Report
Euhedral	Descriptive of a mineral which has a fully developed crystal form
Facies	All lithological features of a specific sedimentary rock from which a depositional environment may be inferred
Fanglomerate	A clastic rock deposited in an alluvial fan
Fault	The surface of a fracture along which movement has occurred
Gecamines	Generale de Carrieres et des Mines, State-owned Mining Company in the DRC - principally concerned with Copper Mining in Katanga province.
Grade	The measure of concentration of copper or cobalt within mineralized rock
Indicated Mineral Resource	The part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed
Inferred Mineral Resource	That part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It 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
KOV Open Pit	KOV open pit mine, an operating open pit mine
Lithology or lithogical	Geological description pertaining to different rock types
Mashamba East Open Pit	Mashamba East mine, a dormant open pit mine
Material Assets	Collectively, KTO Mine, T17 Open Pit, KOV Open Pit, Mashamba East Open Pit, Tilwezembe Open Pit, Kananga Mine, Kamoto Concentrator, Luilu Metallurgical Plant, and infrastructure necessary for the production of the saleable metals
Measured Mineral Resource	The part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity
Metasedimetary	Metamorphosed sedimentary rock
Mineral Resource	A concentration or occurrence of material of economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a mineral resource are known, estimated from specific geological evidence and knowledge, or interpreted from a well constrained and portrayed geological model. Mineral resources are sub-divided in order of increasing confidence, in respect of geoscientific evidence, into inferred, indicated and measured categories
Mwashya or R4	Altered stratified greyish siliceous dolomitic rock with oolitic horizons and a few bands of light yellow talcose schist
Nappe	A highly folded body of rock which has suffered considerable tectonic transport on an orogenic belt
Orogeny	An orogeny is a period of mountain building leading to the intensely deformed belts which constitute mountain ranges
Proterozoic	Era of geological time between $2{,}5 \times 10^9$ and 570×10^6 years ago
Pseudomorph	A secondary mineral which has replaced another but maintained its shape
Roches Argilleuses Talceuse (RAT)	The RAT is considered the boundary between the R2 and R1 units and consists of an upper RAT Grises (R2) and a lower RAT Lilas (R1)
Roches Siliceuses Feuilletées Foliated (Laminated) and Silicified Rocks (RSF)	This is a grey to light brown thinly bedded laminated and highly silicified dolomites
Roches Silicieuses Cellulaires or Siliceous Rocks with Cavities (RSC)	Vuggy and infilled massive to stromatolitic silicified dolomites
Sandstone	Clastic sedimentary rock with more than 25% clasts of sand
Schist/s	A regionally metamorphosed rock characterised by a parallel arrangement of the bulk of the constituent minerals

Schistes De Base or Basal Schists (SDB)	Reddish-brown to grey silty and nodular dolomite to siltstone
Sedimentary	Rocks formed by the accumulation of sediments, formed by the erosion of other rocks
Shales Dolomitiques Superieurs or Upper Dolomitic Shales (SDS)	Yellowish, cream to red bedded laminated dolomitic siltstones and fine-grained sandstones.
Standard deviation	Is the square root of the variance
Stratigraphy	Study of stratified rocks in terms of time and space
Sedimentary	Rocks formed by the accumulation of sediments, formed by the erosion of other rocks
Silicilastics	Clastic rock where the clasts within the rock are mostly silicate minerals
Shale	Argillaceous rock with closely spaced, well defined laminae
Syn	Together with
Tectonic	Relating to a major earth structure and its deformation
T17 Open Pit	T17 Musonoi Open Pit Mine
Tilwezembe Open Pit	Tilwezembe, a recently closed open pit mine
Transgression	An incursion of the sea over land area or over a shallow sea
Variance	Is the difference between the sample value and the mean grade
Volcanics	One of three groups into which rocks have been divided. The volcanic assemblage includes all extrusive rocks and associated intrusive ones
Volcaniclastics	One of the three groups into which rocks have been divided. The volcanic assemblage includes all extrusive rocks and associated intrusive ones

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At Golder Associates we strive to be the most respected global group of companies specialising in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organisational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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SECTION XIV: INDEPENDENT TECHNICAL REPORTS

SUB-SECTION D: MOPANI REPORT

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04 May 2011

GLENCORE INTERNATIONAL PLC

Mopani Copper Mines Plc

Submitted to:
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Spencer Eckstein	Golder Associates Africa	LLB MBA
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REPORT

Report Number. 12971-10168-1

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04 May 2011 12971_Lett_009

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25 Cabot Square
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MINERAL EXPERT’S REPORT: MOPANI COPPER MINES Plc

Dear Sirs

PURPOSE OF REPORT

Golder Associates Africa (Pty) Ltd (“GAA”) has been commissioned by Glencore International AG (“Glencore”), to prepare a Mineral Expert’s Report (“MER”) in respect of the mining assets owned by and operated by Mopani Copper Mines Plc (“MCM”) (the “Material Assets”) a company in which Glencore has an interest. Glencore International plc is expected to be the ultimate parent company of the group.

The Material Assets of MCM comprise of the following:

- Mining assets:
  - Nkana underground mines: the Central Shaft, the South Ore Body, the Mindola Sub-vertical and the Mindola North Shaft; and
  - Nkana open pit mines (Area A, Area D and Area J) (together the “Nkana Mine”);
  - Mufulira underground mine; and
  - Mufulira East and West portals (together the “Mufulira Mine”).
- Processing assets:
  - a sulphide copper-cobalt concentrator at Nkana (“Nkana concentrator”);
  - an oxide copper agitation leach-solvent extraction plant at Nkana (“Nkana Leach' Plant”);
  - a cobalt plant which incorporates a copper solvent extraction and an Electro-Winning (“EW”) tank house (“Cobalt Plant”);

- a sulphide copper concentrator at Mufulira ("Mufulira concentrator");
- an oxide copper agitation leach-solvent extraction plant at Mufulira ("Mufulira Leach Plant");
- an IsaSmelt smelter and refinery at Mufulira.

This MER has been prepared by a team of Competent Persons ("CPs") with each team member possessing the appropriate technical and professional qualifications.

This report, which summarises the findings of GAA's review, accords with the requirements set out in the United Kingdom Financial Services Authority's Prospectus Rules ("Prospectus Rules") and has been prepared having regard to the recommendations for the consistent implementation of the European Commission's Regulation on Prospectuses No. 890/2004 (the European Securities and Markets Authority ("ESMA") recommendations) published by the Committee of European Securities Regulators (now the ESMA, as updated on 23 March 2011 following the publication of a consultation paper in April 2010 in relation to content of prospectuses regarding mineral companies) and Chapter 18 of the Hong Kong Listing Rules.

GAA understands that this MER will be included as part of the prospectus (the "Prospectus") to be published in connection with a global offering of shares and the admission of the ordinary shares of Glencore International plc to the Official List of the United Kingdom Financial Services Authority ("FSA") and the admission of such shares to trading on the London Stock Exchange plc's ("LSE") market for listed securities and the main board of the Hong Kong Stock Exchange Limited (together, "Admission").

This MER provides an audit of the mineral resource estimates, classification of resources and reserves (to the extent applicable) and evaluation of the Material Assets.

The practices and estimation methods undertaken by GAA are in accordance with the criteria for internationally recognised reserve and resource categories of the "Australasian Code for Reporting Mineral Resources and Ore Reserves" (2004) 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").

In addition, GAA is of the opinion that such practices and estimations accord with the requirements set out in the FSA's Prospectus Rules in conjunction with the ESMA recommendations (including proposed amendments thereto). In this report, all reserves and resources estimates, initially prepared by MCM in accordance with the JORC Classification, have been substantiated by evidence obtained from GAA's site visits, interviews, own data collection, analysis and modelling. Where appropriate, GAA has relied on previous work done on MCM by other experts.

CAPABILITY AND INDEPENDENCE

GAA has 50 years of mining and engineering expertise built up on 6 continents. GAA operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to clients. GAA has received, and will receive, professional fees for its preparation of this report. However, neither GAA nor any of its directors, staff or sub-consultants who contributed to this report has any interest in:

- The Company, Glencore, MCM or any of their subsidiaries; or
- The Material Assets reviewed.

Drafts of this report were provided to the Company and MCM, but only for the purpose of confirming both the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

For the purposes of Prospectus Rule 5.5.3R(2)(f), GAA is responsible for this report as part of the Prospectus and declares that it has taken all reasonable care to ensure that the information contained in this report is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect

its import. This declaration is included in the Prospectus in compliance with item 1.2 of Annex I and item 1.2 of Annex III of the Prospectus Directive Regulation.

This MER has been prepared based on a technical and economic review by a team of consultants and associates sourced from the GAA's Johannesburg offices. Details of the qualifications and experience of the consultants who carried out the work are included in the Report.

METHODOLOGY

The methodology used to compile this report consists of the following:

- Site visits conducted by GAA representatives between October and December 2010 to inspect the mine site (open pits and underground workings), plant and processing facilities, waste dumps and tailings facilities in order to audit technical content of previous technical teports and studies conducted for and on behalf of MCM and where necessary for GAA staff to evaluate current requirements and future developments;
- Interviews with various senior MCM managers;
- GAAs own data analysis, engineering, financial, resource, mining and resource modelling; and
- Reliance on previous technical studies and experts reports.

The information contained in this report is current and effective from 1 January 2011, unless otherwise indicated. The results of GAA evaluation are as set out in this MER.

All opinions, findings and conclusions expressed in this report are those of GAA and its sub-consultants.

DECLARATIONS

GAA will receive a fee for the preparation of this MER in accordance with normal professional consulting practice. This fee is not contingent on the outcome of Admission and GAA will receive no other benefit for the preparation of this report. GAA does not have any pecuniary or other interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the mineral resources, ore reserves and the valuation of Material Assets.

GAA does not have, at the date of this report, and has not previously had any shareholding in or other relationship with the Company, Glencore or MCM and consequently considers itself to be independent of the Company, Glencore and MCM.

The results of the technical and economic reviews are summarised herein.

GLOSSARY OF TERMS

Defined and technical terms used in this report are set out in Appendix A of the MER.

QUALIFICATIONS OF CONSULTANTS

The individuals listed in the table below, have provided input to this MER are Qualified/ Competent persons as defined in the JORC Code, United Kingdom Financial Services Authority's Prospectus Rule, European Commissions Regulation on Prospectus No. 890/2004, and Chapter 18 of the Hong Kong Listing Rules and have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

Name	Company	Qualification
Peter Onley	GAA	MBA, MSc, BSc(Hons), FAusIMM, CP Peter Onley has more than 40 years experience in the

Name	Company	Qualification
		mining industry holding qualifications in geology, geotechnical engineering and business. He has worked in a variety of roles, starting as an exploration geologist, a mining geologist, exploration manager, mineral industry consultant, business manager and director of two Australian listed companies. He has worked as a mining industry consultant for over 25 years. He was formerly a director of Golder Associates Pty Ltd employing more than 800 staff in Australia. He has consulted to the industry on a wide range of commodities including diamonds, gold, uranium, iron-ore, bauxite, base metals and both sulphide and lateritic nickel together with some minor commodities such as molybdenum and tungsten. He has for some years been a member of the Geological Survey Liaison Committee which reviews and advises on future work programs for the Geological Survey of Western Australia. He is also a member of the AusIMM Geoscience Committee.
Willem van der Schyff	GAA	BSc (Geology), GDE (Mine Engineering) Willem is an Associate with Golder Associates, the Business Unit Leader for the Mining Services Business Unit and a geologist specialising in resource modelling and evaluation. He has 20 years experience on diverse commodities, ranging from Iron Ore, Coal, Heavy Mineral Sands, Base Metals, Gold, Bauxite and Industrial Minerals, on five continents. This experience includes exploration geology, mining geology and resource modelling and estimation. He is a registered Professional Geologist with the South African Council for Natural Scientific Professions and is a member of the Geological Society of South Africa.
Jaco Lotheringen	Ukwazi	B Eng Mining Engineering (UP), Mine Manager's Certificate of Competency Jaco is currently a director of Ukwazi Mining and is its senior mine engineer. He has 12 years mining experience and has been involved in resource estimates, mine feasibility and mine design studies for the past 6 years for major mining companies such as Kumba, BHP Billiton and Anglo Platinum. His professional memberships include: Registered as a Professional Engineer at Engineering Council of South Africa (20030022); Registered as a Member at South African Institute of Mining and Metallurgy (SAIMM)

Name	Company	Qualification
		(701237). Member of the Institute of Directors in South Africa. Jaco has specific commodity experience in precious metals (gold, platinum), base metals (iron and copper) and minerals such as coal.
Anthony James Nieuwenhuys	SNC Lavlin	BSC (Eng) MDP Anthony James Nieuwenhuys is Managing Director – SNC-Lavalin South Africa with over 30 years of extensive experience in managing international multi-disciplinary projects in the mining, metallurgical and beverage sectors. This experience includes both technical and financial aspects of major projects. Mr Nieuwenhuys' management capabilities include sourcing and arranging financing for projects, strong organizational and interpersonal skills, leadership, initiative, marketing, managing a multi-disciplinary engineering company and the ability to work in different business environments. On the technical side, James has extensive experience in the design, construction and operational aspects of most metallurgical facilities and has specific mining and commodity experience in respect of gold, nickel, diamonds and cobalt.

This report was prepared by GAA in order to support the mineral reserve and resource information contained in the Prospectus. The project manager of this technical report was Spencer Eckstein and the project director was Frank Wimberley.

Yours Faithfully,

GOLDER ASSOCIATES AFRICA (PTY) LTD.

Frank Wimberley
Project Director

Willem van der Schyff
Competent Person

Golder Associates Africa (Pty) Ltd.

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

Golder Associates Africa (Pty) Ltd ("GAA") was commissioned by Glencore International AG ("Glencore"), in November 2010 to prepare a Mineral Experts Report ("MER") in respect of mining assets owned and operated by its subsidiary company, Mopani Copper Mines Plc ("MCM"). Glencore owns 73.1 per cent of MCM with the remainder of the business being owned by First Quantum Minerals Ltd. (16.9 per cent) and ZCCM Investments Holdings Plc (ZCCM-IH 10%). Glencore International plc is expected to be the ultimate parent company of the group.

The purpose of the MER is to assist Glencore by providing it with a technical report, which evaluates the nature and value of the mining assets held by it in order to assist it in its bid to a list Glencore International plc on the London and Hong Kong Stock Exchanges.

This MER has been prepared in accordance with the Australasian Code for Reporting of Exploration Results Mineral Resources and Ore Reserves" (2004) published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia.

The methodology used to compile this report consisted of the following:

- A four site visits between October and January 2011 by various representatives of GAA to inspect the mine site (open pits and underground workings), plant and processing facilities, waste dumps and tailings facilities;
- Interviews with various senior MCM managers from both Nkana and Mufulira;
- GAA's own data analysis, engineering, financial, resource, mining and resource modelling;
- Reliance on previous technical studies and experts reports.

The information contained in this report is current and effective from 1 January 2011, unless otherwise indicated. The results of GAA evaluation are set out below.

Property Description and Location

This MER covers the following operations, projects and associated infrastructure of Mopani located in the Copperbelt province in Zambia which are collectively referred to herein as the "Material Assets", which are listed below:

- Mining assets:
  - Nkana underground mines: the Central Shaft, the South Ore Body, the Mindola Sub-vertical and the Mindola North Shaft; and
  - Nkana open pit mines (Area A, Area D and Area J) (together the "Nkana Mine");
  - Mufulira underground mine; and
  - Mufulira East and West portals (together the "Mufulira Mine").
- Processing assets:
  - a sulphide copper-cobalt concentrator at Nkana ("Nkana concentrator");
  - an oxide copper agitation leach-solvent extraction plant at Nkana ("Nkana Leach' Plant");
  - a cobalt plant which incorporates a copper solvent extraction and an Electro-Winning ("EW") tank house ("Cobalt Plant");

- a sulphide copper concentrator at Mufulira (“Mufulira concentrator”);
- an oxide copper agitation leach-solvent extraction plant at Mufulira (“Mufulira Leach Plant”);
- an IsaSmelt smelter and refinery at Mufulira.

- Related Infrastructure necessary for the production of saleable metals.

The geographical location for the site is set out below.

1.2 Ownership

Glencore owns 73.1 per cent of Mopani with the remainder of the business being owned by First Quantum Minerals Ltd. (16.9 per cent) and ZCCM Investments Holdings Plc (ZCCM-IH) (10.0 per cent).

1.3 History

Nkana has been in operation since 1931 and Mufulira, has been in operation since 1933. The Nkana Mine site is located near the town of Kitwe on the Copperbelt, Zambia. Mufulira lies 50 kilometres north of Kitwe.

In 2000, Mopani purchased the ZCCM assets at Mufulira comprising of an Underground Mine, concentrator, Smelter, and Refinery and at Nkana, which include the Underground Mines, concentrator and Cobalt Plant from the Government of the Republic of Zambia ("GRZ").

Products

The Nkana Mine produces copper and cobalt ore from four sources: North Shaft, Mindola Sub Vertical, Central Shaft and South Ore Body ("SOB"). In addition, Nkana produces copper from open pits, namely area A, D and J. At Mufulira, the sources of copper are Mufulira Shaft, Mufulira East and Mufulira West and extraction is based on two different types of Mining Operations; the first is the original drill and blast underground mining method and the second, newly commissioned type, is the Leaching method.

1.4 Legal Tenure

Mopani currently has two large scale mining licences, which entitles it to operate these two mines and its associated infrastructure in compliance with current Zambian Mining Legislation.

Name	License Number	Issue Date	Expiry Date	Status
Nkana	7625 HQ – LML	31 March 2000	31 March 2025	Valid
Mufulira	7073 HQ – LML	31 March 2000	31 March 2025	Valid

1.5 Resource Model

Geology

The Zambian Copperbelt lies at the south-eastern end of the 800 kilometres long Lufilian fold belt. It comprises deformed rocks of the late Precambrian Katanga system draped around the flanks of a major northwest trending late-tectonic structural feature, the Kafue Anticline. Various elements of the Basement Complex are exposed in the core of this Anticline. As a result of the Lufilian orogeny, the Katanga rocks have been thrown into a series of long narrow en echelon folds and late tectonic dome and basin like structures. The Chambishi-Nkana basin lies about midway on the southern flank of the Kafue Anticline and is elongated in a north-westerly direction.

The Nkana mining area covers the north-westerly plunging Nkana syncline, which forms a south-eastward prolongation to the Chambishi-Nkana Basin. The deformation of the rocks of the Nkana mining area is related almost completely to the Lufilian Orogeny, which affected both the pre-Katanga and Katanga rocks. Little is known about the pre-Lufilian tectonic history of the Basement Complex within the mining area, and so the following description is confined to a summary of the Lufilian structures.

The predominant mega-structure of the mining area is the northwest-plunging Nkana syncline. This structure is asymmetric, with a curved axial plane inclined steeply to the northwest in the trough of the syncline but upright to westward dipping at higher structural levels. A complex occupies the axial zone of the syncline but this folding dies out on its flanks. As a result of the north-westerly plunge of the Nkana syncline, the present land surface represents a horizontal section through progressively higher structural levels of the syncline from southeast to northwest.

The rocks of the Mufulira Basin are asymmetrically folded, moderately dipping on the south western flank and sub vertical on the north eastern limb, outcropping at Mokambo on the DRC border. The Roan sediments in the Mufulira syncline in the vicinity of the mine dip at approximately 45º to the north east. Small folds and minor faults are present within the mine area. The Lower Roan arenaceous quartzites and greywackes are the host rocks to the copper mineralisation.

Mineralisation

Within the Nkana mining area there are four underground mines and four open pits. All are situated on the north-eastern limb of the Nkana Syncline area. Other cupriferous zones are present in the nose and southwest limb of the syncline. The orebodies are stratiform and are mainly confined to a recognisable ore formation, which occurs near the base of the Katangan sequence within the Lower Roan Group of the Mine Series.

In the underground workings, the principal copper ore minerals are chalcopyrite and bornite with subordinate chalcocite. There is a zoning in the geographical distribution of these minerals. Cobalt occurs as carrollite and cobaltiferious pyrite. The principal ore minerals are malachite, pseudomalchite, chrysocolla, native copper, cuprite and libethenite. In the open pit, malachite and chrysocolla are the principal ore minerals in the zone of oxidation closer to the surface. In some places however, vermiculite, malachite pseudomalachite and accessory wad are more important. At deeper levels chalcopyrite, bornite and chalcocite predominate are present

In the Mufulira mining area, the Basement complex topography appears to have exerted a significant structural control during deformation. The distribution of ore minerals in all three ore bodies is stratigraphically controlled, occurring dominantly as disseminations, blebs and irregular masses. The principal copper minerals are chalcopyrite (60%), bornite (40%), and minor/trace chalcocite. Oxide minerals are confined to near surface occurrences, and supergene enrichment zones. Generally the deposit is structurally simple being characterised by three main folds that are in part overturned with a plunge and dip approximately 10º the northeast. The basin is open and untested at depth.

Mineral Resources and Ore Reserves

With effect from 1st January 2011, Mopani collectively has a total of Measured Mineral Resource and Indicated Mineral Resources of 218 Mt of ore with a grade of 2.02% TCu, 0.23 % ASCu and 0.11% TCo as described in the table below:

Mopani Mineral Resources as at 31st December 2010

	Nkana				Mufulira				Total			
	Mt	%TCu	%TCo	%ASCu	Mt	%TCu	%TCo	%ASCu	Mt	%TCu	%TCo	%ASCu
Measured	145.8	2.00	0.10	0.25	28.2	2.18	-	0.28	173.9	2.01	0.10	0.25
Indicated	34.5	1.80	0.14	0.07	9.9	2.62	-	0.31	44.3	1.93	0.14	0.11
Measured and Indicated	180.3	1.96	0.11	0.21	38.1	2.30	-	0.28	218.2	2.02	0.11	0.23
Inferred	35.4	1.65	0.14	0.06	37.6	2.62	-	0.11	73.0	2.12	0.14	0.09

1) Mineral Resources have been reported in accordance with the classification criteria of the JORC Code.

2) Mineral Resources are quoted inclusive of Mineral Ore Reserves.

3) Mineral Resources are not Mineral Ore Reserves and do not have demonstrated economic viability.

1.6 Reserves Estimate

Set out below are the reserve estimates for Nkana and Mufulira.

Nkana

Underground mining operations at Mopani Copper Mines Plc ("MCM") consist of four active operating underground mines. The underground mining operations are accessed by shafts namely Central, Mindola Sub-vertical ("SV"), SOB and Mindola North Shaft ("MNS"). Underground mining operations started in 1931 with the oldest operating shaft being Central Shaft. The mining methods used include Vertical Crater Retreat ("VCR"), Sub-Level Caving ("SLC"), and Longitudinal Room and Pillar ("RAP"). Average underground production for the last five years is 3.4 million tonnes per annum ("Mtpa") of ore at 1.94 %Cu and 0.12 %Co.

Area A pit is an expansion of Mindola open pit to the south. Depletion of the pit is expected by June 2011 at 40 000 tonnes of ore and 120 000 tonnes of waste per month. Area D is an oxide cap above the Mindola Sub –Vertical Shaft underground workings. The scheduled production from this pit is 40 000 tonnes of ore and 220 000 tonnes of waste per month. Pit depletion is expected by February 2011. Area J started stripping waste in 2010 and currently produces low grade ("LG") ore from the top benches. Oxides below the planned pit bottom are planned for exploitation by underground methods with pit access.

A historical cut-off grade of 1%TCu is applied in all underground mining areas and a true thickness cut-off of 10m% constraint used in thin ore bodies. Mining relative modifying factors and efficiencies vary based on the mining method and ore body mined. Mining recovery ranges from 54% localised to Mindola North to 95% at Central shaft. Dilutions vary from 5% at South syncline to 20% in the SOB upper levels. Extractions vary from 70% to 100% at Nkana.

A total of 2.9 million Run of Mine ("ROM") tonnes was produced from all operations in 2009 at 1.85% Cu. The sulphide ore combined open pit and underground schedules deliver a ROM head grade of 1.83% Cu for a total of 108.1 million tonnes of ROM ore up to the year 2035. Production from the open pit operations is planned up to 2012. The peak production rate from underground operations is 5.1 million tonnes per annum from 2018 to 2026 on ore and 1.2 million tonnes per annum on waste in 2014.

The oxide ore mineral reserve is estimated at 2.6 million tonnes proved and probable mineral reserves at 3.66% Cu and 0.13% Co. The sulphide ore mineral reserve is estimated at 108.1 million tonnes proved and probable mineral reserve at 1.83% Cu and 0.12% Co. Resources were converted based on the mine plan with a diluted grade greater than 1% Cu.

	Proved Reserve				Probable Reserve			
Ore type	**Mt**	**% TCu**	**% ASCu**	**% TCo**	**Mt**	**% TCu**	**% ASCu**	**% TCo**
Oxide ore	1.8	4.02	2.89	0.14	0.8	2.84	2.10	0.10
Sulphide ore	92.3	1.84		0.10	15.9	1.80		0.23

Mufulira

The mining methods employed at Mufulira Mine are variants of Mechanised Continuous Retreat ("MCR"). The variant mining methods are Mechanised Continuous Retreat 1 ("MCR1") and Mechanised Continuous Retreat 2 ("MCR2"), employed at Mufulira West and Mufulira Central. RAP mining is employed at Mufulira East. Mining of the Mufulira ore bodies is divided into three areas:

- Mufulira East;
- Mufulira Central; and
- Mufulira West.

Mufulira Central is further sub divided into the Upper, Central and Deeps areas, based on elevation.

Historical cut-offs of 4m true thickness and 2% TCu are applied at Mufulira before applying mining related modifying factors. Internal blocks with grades less than 1% were included in the reserves as internal stope

dilutions. Mining efficiencies and mining related modifying factors include dilution, mining recovery and mining extraction. The mining recovery is 83% on average while extraction varies from 82% to 94% based on the mining method and ore body type. Dilutions vary from 18% to 30%.

A total of 1.6 million ROM tonnes were produced from the underground operations in 2009 at 2.0% Cu. The underground schedule delivers a ROM head grade of 2.7% Cu for a total of 12.3 million tonnes of ROM ore up to the year 2022. The bulk of the LOM production tonnes are produced from Mufulira Central Deeps at 1.0 million ROM tonnes per annum from 2015 to 2022.

The mineral reserve is estimated at 10.6 million tonnes proved and probable reserves at 2.6% Cu and 1.0% ASCu.

Proved Reserve			Probable Reserve		
Mt	**% TCu**	**% ASCu**	**Mt**	**% TCu**	**% ASCu**
8.1	2.51	0.96	2.5	2.96	-

1.7 Plant and Equipment

At Nkana Mopani operates a concentrator, Cobalt Plant and Leach plants. Conventional methods are employed in the concentrator namely; crushing, grinding, flotation and dewatering. Copper and cobalt concentrates are produced from a bulk concentrate by a segregation process. At Nkana, the concentrator operates in a conventional manner, and has a capacity of 12 000 mt per day. Primary stage crushing of ore is done underground while the secondary and tertiary stage crushing takes place at the concentrator. Ball mills grind the crushed ore for subsequent flotation to produce a copper concentrate grade of approximately 30%.

At Mufulira there is a full complement of metallurgical facilities. The Mufulira concentrate is approximately 41%. At Mufulira, the concentrator operates in a conventional manner, and has a capacity of 8 350 mt per day. The copper concentrate conveyed into the Isasmelt furnace is a blend of concentrate from Nkana and Mufulira as well as from 3rd party tolled concentrate. This process produces Matte and Slag which in turn is channelled to the matte settling furnace ("MSEF") for settling into separate copper matte and slag phases. The resultant matte is transferred to Converters. Blower air is injected into the Converters through tuyeres to remove sulphur and iron. The product, blister copper, is then fire-refined in Anode Furnaces.

Mufulira copper anodes are treated in the Mufulira electrolytic refinery to produce high quality copper cathodes ("MCM" LME brand) for onward sale. The three SX Plants at the Refinery treats PLS from the Vat Leach and Leach operations for the production of copper cathodes at the EW section in the newly constructed tank house.

In terms of the economic valuation as set out below, this includes the value of the plant and equipment.

Concentrator recovery at Nkana is approximately 92.5%. The concentrator recovery at Mufulira is approximately 94%.

1.8 Closure

A closure assessment was conducted on both Nkana and Mufulira. The assessment was based on the mine infrastructure footprint and associated battery limits. The closure costs also take into account the rehabilitation required in terms of the mine property, operations, waste facilities and other relevant land uses. The indicative closure costs for Nkana and Mufulira are tabulated below.

Closure Assessment	Assessed Closure Cost
Nkana	USD 24,56m
Mufulira	USD 27,05m
Total Mopani	USD 51,6m

Reliance has been placed on previous expert reports, technical studies and costs estimates for closure, notably Scott Wilson. In the light of the differences in methodology and the cost estimates between Scott Wilson and GAA, it was recommended that the fair and reasonable financial provision for Mopani would be approximately USD 51m.

1.9 Environmental Review

Nkana

The environmental assessment focused only on critical environmental and social issues, so as to identify risks that could be major liabilities.

Key Results of the Audit

The limitations of this audit notwithstanding, the following conclusions were reached in regards environmental and social management at Nkana Mine:

- The environmental performance of Nkana Mine is compliant with its environmental licence and Environmental Management Plan ("EMP") conditions.
- Environmental impacts which generally exceed licence conditions and pose a risk to Nkana Mine operation in terms of compliance to statutory requirements and the Equator Principles[1] include:
  - Effluent discharge to the environment, particularly from the acid plant and Cobalt Plant, high Cu and Co concentrations to the North Uchi Stream which drains to the Kafue River. It would appear that a significant component of this risk could be managed by ensuring that tailings thickener overflow pH is at least 8.5 and that the Cobalt Plant concentrates is stored under cover prior to slurrying and roasting; As mitigation a dedicated lime plant for the Nkana Leach Plant has been installed to ensure effective neutralisation of leach residue disposed through concentrator Tailings Thickener ("TT"). It is envisaged that this will ensure that TT overflow wastewater into North Uchi is in compliance as regards dissolved copper, cobalt and manganese. In addition in respect of Mindola SV Shaft, Nkana plans to install a filter press underground for filtering out the suspended solids in the water prior to pumping to surface. The filter cake will either be mixed with ore or if of no value mixed with waste rock for disposal (due in 2011).
  - Spillage of tailings from the tailings pipeline, booster pump station and/or tailings bleeds points to the adjacent two streams. As mitigation spilled tailings have been cleaned and deposited in the operating tailings dump (TD15A); and
  - Venting of flue gas from the Cobalt Plant direct to the atmosphere rather than via the acid plant results in SO_2 emissions consistently exceeding the long term limit of 1 000 mg/Nm^3. As mitigation a various options to address the sulphur dioxide emissions are being considered, this includes Gas scrubbing to remove the SO_2 and thereafter neutralise the acidic water before disposal.
  - It is envisaged that when the Synclinorium Project comes on line in 2015, the sulphur in ore and hence in Cobalt concentrates will improve to allow for the operation of the acid plant.

[1] The Equator Principles (EPs) are a voluntary set of standards for determining, assessing and managing social and environmental risk in project financing adopted by the international financial industry (see: ww.equator-principles.com)

- Mopani is complying with its commitment to manage social issues and promote sustainable development within the limits that could reasonably be expected of a private company.
- The management of community expectations driven by legacy issues is a critical factor affecting the long term relationship between the mine and the community.

Mufulira

The environmental assessment focuses only on critical environmental and social issues, so as to identify risks that could be major liabilities. Wherever possible, existing documentation has been used as a basis for conclusions drawn.

Key Results of the Audit

The limitations of this audit notwithstanding, the following conclusions were reached in regard to environmental and social management at Mufulira Mine:

- The environmental performance of Mufulira Mine is compliant with its EMP and licence conditions;
- The quality of the combined effluent streams exiting the mine boundary is compliant;
- Environmental impacts which exceed licence conditions and pose a risk to Mufulira Mine operations in terms of compliance to statutory requirements and the Equator Principles include:
  - The quality of tailings dam discharge is at times non compliant due to incomplete neutralisation of raffinate bleed, which is routed to the tailings thickener for disposal with the tailings. As mitigation the focus is on planting of vegetation on areas of TD11 dump which will not be deposited with tailings in the future e.g. the southern embankment. Rate and extending of annual planting is being intensified since the last two rainy seasons.
- Mopani is complying with its commitment to manage social issues and promote sustainable development within the limits that could reasonably be expected of a private company.
- The management of community expectations driven by legacy issues is a critical factor affecting the long term relationship between the mine and the community.

1.10 Economic Evaluation

An economic evaluation presents a valuation of MCM. Glencore owns 73.1% of MCM. The valuation presented here is a valuation of Glencore's Interest in MCM, being the sum of the 73.1% Equity Value in MCM and Shareholder Loans provided to MCM.

Revenue, Capital and Operating Cost Estimates

Production levels of copper and cobalt for Mopani are based on the mine plans for the various operations and the historical recoveries from the processing plants. Metals prices were provided by Glencore. Operating cost estimates were based on contractual, current and budgeted costs.

Capital expenditure is required for sustaining current and future mining operations and related infrastructure, which include a range of Special Projects:

Special Projects: Capital expenditure for numerous projects across mining, plant and services, including:

- Major overhauls such as the rebuilding of the tank house at the refinery, the rebricking of ISA every 2 years and rebricking of the MSEF every 4 years.
- New operating assets, such as ISA Smelt, MSEF, Acid Plant, Anode Furnaces and Casting Wheels, Converters, Smelter water pipeline to the Kafue.

- Expansion Projects such as Synclinorium Shaft and related infrastructure, Area J open pit stripping, Insitu leach mine and process plants.

Capital Expenditure for Mopani

USD Million	2010 Actual	2011	2012	2013	2014	2015	2016 - 2035	Total (2011 – 2035)
Total Capex	129.6	182.6	178.0	151.1	157.2	74.6	733.3	1,476.8

1.11 Valuation

The valuation was done at a discount rate of 10%, base date 1 January 2011. Based on a 73.1% in MCM and outstanding shareholder loans, Glencore's economic interest in MCM is USD 1,922 million.

1.12 Mopani MER Extraction Table

Group level	2008A[2]	2009A	2010A	2011E	2012E	2013E	2014E	2015E
Finished metal production capacity (tonnes) - actual / forecast								
Copper	285,000	285,000	300,000	300,000	300,000	300,000	300,000	300,000
Cobalt	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
Finished metal production (tonnes) - actual / forecast								
MCM Metal (own sources)								
Copper	110,261	98,319	94,439	110,630	103,504	100,530	107,515	103,611
Cobalt	1,458	1,271	789	1,331	1,303	1,218	1,215	1,327
MCM Metal (purchases)								
Copper	8,952	2,105	7,941	23,784	7,836	7,835	7,836	7,836
Cobalt	0	0	303	858	858	858	858	858
Toll Treatment								
Copper	46,205	84,248	95,056	101,581	99,151	133,588	116,984	130,716
Cobalt	0	0	0	0	0	0	0	0
Operating Cost[3]	**652,090**	**434,281**	**513,581**	**546,899**	**477,008**	**477,821**	**476,254**	**469,001**
By-products revenues (US$m)	**64,555**	**60,417**	**60,802**	**77,811**	**91,907**	**119,097**	**105,669**	**143,472**
Royalties (as a % market price)								
Copper	3%	3%	3%	3%	3%	3%	3%	3%
Cobalt	3%	3%	3%	3%	3%	3%	3%	3%
Depreciation & amortisation (US$m)	**110,769**	**139,437**	**150,050**	**107,916**	**110,934**	**107,480**	**93,359**	**86,395**
Statutory Tax rate %	**30%**	**30%**	**30%**	**30%**	**30%**	**30%**	**30%**	**30%**
Capex (US$m)								
Sustaining	75,679	33,042	91,032	86,002	75,321	59,218	37,215	51,219
Expansionary	61,266	24,512	38,572	96,501	102,727	91,851	120,013	23,358
TOTAL CAPEX	**136,945**	**57,554**	**129,604**	**182,503**	**178,048**	**151,069**	**157,228**	**74,577**

[2] A refers to Actual Amounts and E refers to Estimated Amounts

[3] Excl. depreciation, royalties & by-product revenues) (US$m)

1.13 Mopani Headcount

The staff compliment for Mopani is tabulated below.

December 2010 Mopani Headcount	
Mining	3,495
Engineering	747
Processing	2,228
General and administration	632
Corporate	420
Total	**7,522**
Contract employees MCM	488
Grand total	**8,010**

There are currently 6,413 contractors on site.

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APPENDICES

APPENDIX A
Glossary and Abbreviations

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2.0 INTRODUCTION

Golder Associates Africa (Pty) Ltd ("GAA") was commissioned by Glencore International AG ("Glencore"), in November 2010 to prepare a Mineral Experts Report ("MER") in respect of mining assets owned and operated by its subsidiary company, Mopani Copper Mines Plc ("MCM"). Glencore owns 73.1 per cent of Mopani with the remainder of the business being owned by First Quantum Minerals Ltd. (16.9 per cent) and ZCCM Investments Holdings Plc (ZCCM-IH) (10 per cent). Glencore International Plc is expected to be the ultimate parent company of the group.

The purpose of the MER is to assist Glencore by providing it with a technical report, which evaluates the nature and value of the mining assets held by it in order to assist it in its offer to a list Glencore International plc on the London and Hong Kong Stock Exchanges.

3.0 DESCRIPTION OF RESOURCES

3.1 General Geology

3.1.1 Nkana Operation

The general geology was provided by Mopani Mine in the document "Geological guide to Nkana, Mopani Copper Mines Ltd" and is detailed below.

The Zambian Copperbelt lies at the south-eastern end of the 800 kilometres long Lufilian fold belt. It comprises deformed rocks of the late Precambrian Katanga system draped around the flanks of a major northwest trending late-tectonic structural feature, the Kafue Anticline. Various elements of the Basement Complex are exposed in the core of this Anticline. As a result of the Lufilian orogeny, the Katanga rocks have been thrown into a series of long narrow en echelon folds and late tectonic dome and basin like structures. The Chambishi- Nkana basin lies about midway on the southern flank of the Kafue Anticline and is elongated in a north-westerly direction. The Nkana mining area covers the north-westerly plunging Nkana syncline, which forms a south-eastward prolongation to the Chambishi-Nkana Basin.

Within the mining area there are four underground mines and four open pits. All are situated on the north-eastern limb of the Nkana syncline area. Other cupriferous zones are present in the nose and southwest limb of the syncline. The orebodies are stratiform and are mainly confined to a recognisable ore formation, which occurs near the base of the Katangan sequence within the Lower Roan Group of the Mine Series.

In the underground workings, the principal copper ore minerals are chalcopyrite and bornite with subordinate chalcocite. There is a zoning in the geographical distribution of these minerals. Cobalt occurs as carrollite and cobaltiferious pyrite. The principal ore minerals are malachite, pseudomalchite, chrysocolla, native copper, cuprite and libethenite. In the open pit, malachite and chrysocolla are the principal ore minerals in the zone of oxidation closer to the surface. In some places however, vermiculite, malachite pseudomalachite and accessory wad are more important. At deeper levels chalcopyrite, bornite and chalcocite predominate.

3.1.2 Mufulira Operation

The rocks of the Mufulira Basin are asymmetrically folded, moderately dipping on the south western flank and sub vertical on the north eastern limb, outcropping at Mokambo on the DRC border. The Roan sediments in the Mufulira Syncline in the vicinity of the mine dip at approximately 45º to the north east. Small folds and minor faults are present within the mine area. The Lower Roan arenaceous quartzites and greywackes are the host rocks to the copper mineralisation.

The Mufulira deposit consists of three complex superimposed stratiform ore bodies, named A, B and C respectively. The C orebody is the lowermost and most extensive, measuring almost 5.5km along strike and more than 2km below surface. The Basement topography appears to have exerted a significant structural control during deformation. The distribution of ore minerals in all three ore bodies is stratigraphically controlled, occurring dominantly as disseminations, blebs and irregular masses. The principal copper minerals are chalcopyrite (60%), bornite (40%), and minor/trace chalcocite. Oxide minerals are confined to near surface occurrences, and supergene enrichment zones. Generally the deposit is structurally simple

being characterised by three main folds that are in part overturned with a plunge and dip approximately 10º the northeast. The basin is open and untested at depth.

The deposit is mined by mechanised continuous retreat. The method involves two sublevels advancing en echelon with a lead lag of three to four fans. The upper mining level carries a chain pillar, the lower level is the extraction level, and generally no rib pillars are involved in the design layout. Stopes designated MCR1 are mined on a single level, while those designated MCR2 have a drilling level in addition to the extraction level.

At Mufulira East and Mufulira West the geology is similar to that outlined above. These deposits are not deep and superficial effects have resulted in a higher proportion of oxides and relatively less competent ground due to weathering. The oxide content at Mufulira West is not as high as that at Mufulira East and the location of mineralisation is different. At the former mineralisation occurs in the D orebody horizon while at the latter A, B and C orebodies are characterised by distinctive malachite, with minor chrysocolla and azurite mineralization.

3.2 Local Geology

3.2.1 Nkana Operation

The deformation of the rocks of the Nkana mining area is related almost completely to the Lufilian Orogeny, which affected both the pre-Katanga and Katanga rocks. Little is known about the pre-Lufilian tectonic history of the Basement Complex within the mining area, and so the following description is confined to a summary of the Lufilian structures. A generalised stratigraphic column for the Nkana mining area is shown in Figure 1.

The predominant mega-structure of the mining area is the northwest-plunging Nkana syncline. This structure is asymmetric, with a curved axial plane inclined steeply to the northwest in the trough of the syncline but upright to westward dipping at higher structural levels. A complex occupies the axial zone of the syncline but this folding dies out on its flanks. As a result of the north-westerly plunge of the Nkana syncline, the present land surface represents a horizontal section through progressively higher structural levels of the syncline from southeast to northwest. Similarly, current underground mining operations at South orebody Shaft are located along the north-eastern edge of the folded axial zone whereas at Central, Mindola and North Shafts these operations are mainly in the relatively undeformed steep to shallow-dipping north-eastern flank of the Nkana syncline.

Outside the working areas, surface mapping and diamond drilling from both underground and surface provide the basis for structural interpretation. Even so, the structure of the deeper parts of the syncline, particularly from the Kitwe Barren Gap northwards, is little known.

Within the axial zone of the Nkana syncline, shear folding is characteristic of the deformation style of the Lufilian Orogeny, with transposed bedding attenuated to sheared-out folds limbs, axial swelling and chevron structures being developed. The structures indicate thrusting directed towards the northeast, with decollement present at the Basement/Lower Roan and Footwall Formation/Ore Formation boundaries. In addition, the Basement Complex adjacent to the Lower Roan cover has been sheared with refoliation developed parallel to the axial planes of the folds in the Katanga rocks. During the early stages of deformation, open symmetrical folds such as the C anticline at South Orebody Shaft and the Zero Anticline at Central Shaft, were formed. As shearing stress built up, these earlier structures were modified; in some cases substantially. Post-shearing effects such as reversals of fold plunges, trans-current movements, faulting and kink zones are probably related to the late-tectonic up-doming of the Kafue anticline as the Katanga cover rocks adjusted themselves to essentially vertical movements between blocks of different competency within the underlying basement and complex. In places, for example at 4800S (SOB), there is evidence to suggest that the late-tectonic vertical movements have accented the pre-Katanga palaeo-topography, which itself has influenced the deformation by the buttressing effect produced by the granite gneiss palaeo-hills.

The following brief descriptions of the structure at Mindola and North Shafts and Central and South orebody Shafts serve to demonstrate the contrasting deformational styles on the flanks and in the axial zone respectively of the Nkana syncline.

3.2.1.1 Mindola and North Shaft

In the North Shaft area, that is between 1550N and 3700N the orebody dips at an average of 30° westwards above 1380L with only minor rolls to disturb its planar habit. Below 1380L the dip increases to about 45° and increases both southwards to the dyke at 1300N and with increasing depth, locally it reaches about 70°. South of the dyke, the dip becomes steep to over-turn and assumes a maximum reverse value of 75° at 5660S. Dewatering and exploration drilling in the area between 2330S and 5000S have indicated folding of the hanging wall beds. This folding and the reversal of dip in the far south of Mindola is probably related to the buttressing effect of the Kitwe Barren Gap combined with the axial zone deformation where it plunges northwards through the barren gap from Central Shaft area.

3.2.1.2 Central Shaft

At Central Shaft, the folded lower part of the north-eastern flank of the syncline is exposed by past and current mining operations. There are three major folds present on the north-eastern flank. From east to west, these are the North, Zero and J folds. The plunges are variable between 20° and 45° to the northwest. The Zero Fold consists of an open upright symmetrical anticline with maximum amplitude of 350m and an asymmetric complementary syncline to the east. Axial planar shear has occurred on the crest of the Zero Anticline, affecting the Ore Formation and hanging wall beds in particular. Traced up-plunge, the Zero Anticline becomes a tight asymmetric structure similar to the North and J Anticlines, which flank it. These folds are shear folds, with axial planes steeply inclined to the southwest at the top but overturned to the northwest at the base of the fold. Typically, the anticline has short northeast facing limbs and long southwest-facing limbs, indicating that shearing stress was directed towards the northeast.

3.2.1.3 South orebody Shaft

The complex folded axial zone of the Nkana syncline is best known at South orebody Shaft, where past and current mining development, including hanging wall dewatering drilling and exploration drilling from both underground and surface has been and is being carried out in this part of the main syncline.

There are at least six major complex folds from east to west. The folds are arranged en echelon and plunges undulate erratically. There is a marked flattening of plunge in barren gap areas, which are associated with basement ‘highs’, with a corresponding steepening of plunge off the flanks of the barren gaps. The folds are tightly compressed, with attenuation of limbs, bedding plane crumpling, axial plane cleavage and axial plane shearing well developed. Minor shear folds are commonly developed on the limbs of the major structures, the axial zones of which are usually feathered out by axial plane shear. These shear features are particularly well displayed where units of different competency are juxtaposed for example the Footwall Formation and the Near Water Sediments and Dolomite Argillite Sequence on either sides of it. The C-anticline, with maximum amplitude of 250m, is a good example of an earlier more open, upright symmetrical fold which has been modified by subsequent axial plane shearing.

3.2.1.4 The West Limb

The West Limb of the Nkana syncline is only partially understood, the geological evidence being obtained from diamond drilling and surface mapping. However, it is clear that the West Limb is folded in a similar fashion to the axial zone of the main syncline. North of 7800N (Central Shaft), folding of the West Limb dies out gradually as the Nkana syncline opens out into the Chambishi-Nkana Basin. The major structure on the west Limb between the nose area and 7800N (Central Shaft) is the Luanshimba Anticline. This has a shallow undulating plunge and its limbs have been deformed by a complex of en enchelon shear folds with curved axial planes fanning outwards from the Luanshimba Anticline.

3.2.1.5 Metamorphism

Broadly speaking, the lithological terms applied to the Katanga rocks are misleading in that they imply a lower grade of metamorphism than is, in fact, the case. All the sediments have undergone a degree of metamorphic recrystallisation, although in the case of the quartzitic rocks this has not been sufficient to destroy the sedimentary micro – and micro-textures. The most common metamorphic minerals are biotite, chlorite, tremolite, talc, sericite and albite. This assemblage indicates a metamorphic grade in the

Greenschist Facies. There is some variation in grade from the quartrz-albite-epidote-biotite sub facies in the more highly deformed areas to the quartz-albite-muscovite-chlorite sub facies in the less deformed rocks.

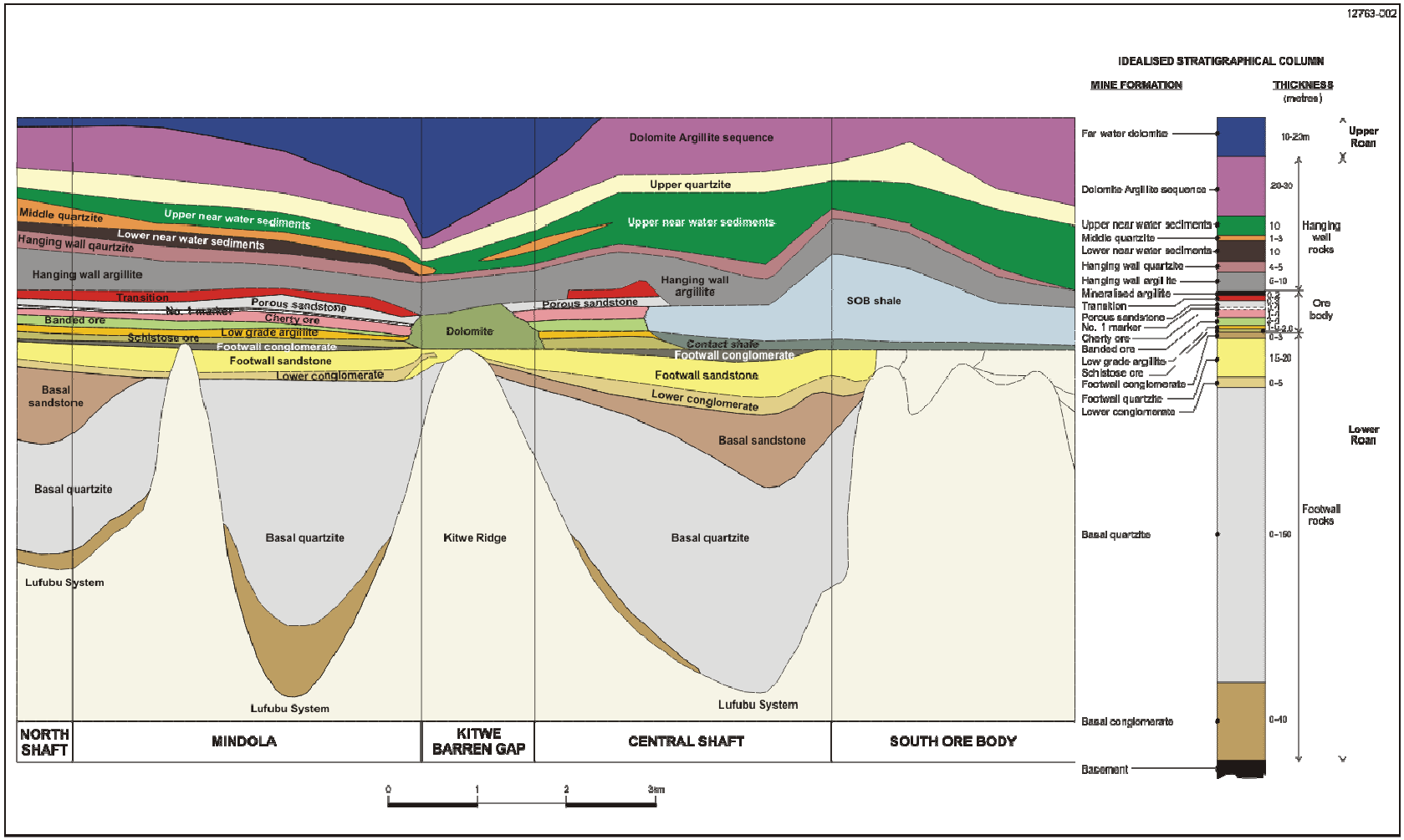


Figure 1: A generalised stratigraphic column for Nkana Mine

3.2.2 Mufulira Operation

Structurally, the Mufulira orebodies are much less complex. It consists of three superimposed stratiform ore bodies within the Lower Roan and locally named as the A, B and C orebodies. The C orebody is the lowermost and most extensive, measuring almost 5.5km along strike and more than 2km below surface. The Basement and Complex topography appears to have exerted a significant control on the distribution of mineralisation. The distribution of ore minerals in all three ore bodies is stratigraphically controlled, occurring dominantly as disseminations, blebs and irregular masses. The principal copper minerals are bornite, chalcopyrite and chalcocite. Oxide minerals are confined to near surface occurrences, supergene enrichment zones and occasionally on top of Basement and Complex highs. Generally the deposit is structurally simple being characterised by three main folds that are in part overturned with a plunge and dip approximately 10° the northeast.

The statigraphic column is illustrated in figure below:

MUFULIRA STRATIGRAPHIC COLUMN

(*modified after Brandt et al., 1961; Wendorff, 2005*)

Group	Formation	Thickness (m)	Stratigraphic Column	Lithology
Mwashia			Lower	Sandstones and Shales
			Middle	Siliciclastics, Carbonates and Shales
			Upper	Conglomerates with clasts of Roan rocks
			unconformity	
>760 Ma		500 +		Upper Dolomite Aquifer
				Barrier Quartzite
				Upper Dolomite Aquifer
				Upper Roan mineralisation
Upper Roan		50 - 45		Interbedded Shale and Quartzite
		4 - 6		Blue Shale
		30 - 45		Upper Intermediate Dolomite Aquifer
		6 - 12		Middle Quartzite
		20 - 50		Lower Intermediate Dolomite Aquifer
Lower Roan	HW Formation	6 -12		Glassy Quartzite
		20 - 40		Upper Argillaceous Quartzite
		4 - 6		Marker Grit
		20 - 40		Lower Argillaceous Quartzite
				95' Dolomite Aquifer
				Lower Argillaceous Quartzite
				85' Dolomite Aquifer
				Lower Argillaceous Quartzite
				70' Dolomite Aquifer
				Lower Argillaceous Quartzite
	Ore Formation	3 -12		A Ore Horizon
		10 - 30		Inter A/B Beds
		3 - 5		Lower Dolomite
		3 - 15		B Ore Horizon
		4 - 15		Inter B/C Beds
		3 - 20		C Ore Horizon
	FW Formation	0 - 150	Upper / Middle / Lower	FW Quartzites and Grits
880 Ma		0 - 15		Basal conglomerate
			unconformity	
Basement/Complex				Granite Intrusive into Lufubu Schist

Figure 2: Mufulira Stratigraphic column

3.3 Mineral Resource Estimation Methodology

3.3.1 Exploration and Data

3.3.1.1 Nkana

The data used for the resource areas include three sources of sampling, namely:

- Underground evaluation holes drilled on a 120m to 300m grid size, later reduced to 60m, using a NQ drill size at the collar reducing to BQ drill size when problems are experienced. These holes form the base of the information used for geological modelling and estimation.
- Dewatering drill holes are drilled every 60m and are fanned out to cover the available envelope to be dewatered. Drilling is completed approximately 5 years before mining in an area. The dewatering holes are collared at HQ size and reduced to NQ size.
- Underground channel samples are completed at 30m intervals on the northern wall of the exposure to determine the actual mineral grades of the exposed ore.

The current diamond drilling for Mopani (both at Nkana and Mufulira) is carried out by Reldrilza Zambia Ltd and supervised by Mopani geologists at the relevant shaft. The evaluation holes are drilled by using smaller pneumatic machines which can drill up to 200m. The larger hydraulic-electric machines are used for drilling exploration and dewatering holes of between 200m and 500m.

The contractual obligation between Reldrilza and Mopani is that a core recovery of 90% in general and 95% in the orebody has to be obtained. If this criterion is not met, Reldrilza are required to re-drill the hole at their own expense. The drills are equipped with wire line equipment for efficient core recovery. The recovered core is placed in metal core trays and carefully labelled by the driller. The core is transported to the core shed every morning and a daily drilling report is submitted by the driller who lists the recorded metres drilled and identifies any problems encountered.

Boreholes in excess of 100m require an in-hole camera survey to be completed by the contractor.

The sample length is based on the geological boundaries and varies between a quarter of a metre to one metre; however, a sample length of one metre is preferred, when possible. The core samples are halved for analysis. The geologist logs the core by hand on paper log sheets whereby the geologist describes the core conditions, core recovery (from the driller), core angles in degrees, formation, Minerals (first, second and third), visual (%) estimate of mineralisation and a description of the core to include; colour, grain size, shape, alterations, textures and additional comments. The log sheet also allows for capturing of the copper and cobalt assay results. Previously itemised codes were used for logging; however, this has been done away with to accommodate better description of the core. The geologist enters the data into an excel spreadsheet or directly into a temporary access database. The temporary databases are cleaned and validated before combining the data into a “Stand Alone Database” for each of the shafts, which is again validated. Once the final validation is complete the “Stand Alone Database” is updated into the SQL Database on the Main server. The main server is automatically backed up bi-weekly to conform to the current Mopani database management practices.

No samples for measurement of specific gravity (“SG”) are taken at this stage, and an SG of 2.56 t/m^3 is assigned for the entire orebody.

Table 1: Summary of data provided in Collar Tables for Nkana

Database	Number Hole ID's	Boreholes	Chips
Central SOB	1,317	1,008	309
Mindola	918	683	235
Mindola North	2,005	1,061	944
Area A	82	82	-
Area D	27	27	-
Area J	51	51	-
Area K	113	113	-
C Syncline	40	29	11
D Anticline	155	97	58
F Syncline	68	68	-
Central Upper Levels	86	82	4
Total	**4,862**	**3,301**	**1,561**

3.3.1.2 Mufulira

Drill core, rock chip sampling and sludge sampling are the principal forms of sampling used in grade and tonnage estimations.

Geological samples: Rock chip samples are taken along the walls of underground crosscut development that is generally perpendicular to strike. Sample length varies from 0.5m to 1.0m. Before sampling is carried out the face is cleaned, mapped for rock type, structure and mineralisation, and the lithological contacts painted. Chip samples are then taken at grade elevation (approximately 1.5m above floor) every metre along the length of exposure, with each sample weighing about 2kg. Samples are not taken across lithological contacts.

Sludge sampling: Sludge holes are drilled at grade elevation and collared between 0º and +10º. Samples are collected using a bucket placed beneath the hole over a 1.5m interval (which corresponds to the length of the drill rod). The samples are logged for colour, grain size, lithology and mineralisation. Possible dilution is reduced through prolonged washing/flushing of the hole between sample intervals.

Drill core samples: Drill samples are taken after the drill hole is completed and the core has been logged. Sample interval varies from 0.4m to 1.0m and does not cross lithological or mineralogical boundaries. Where core is split one half is retained for future reference.

Production samples: Grab samples are taken at production stope faces as part of grade control and reconciliation procedures. A nine point grid is visualised across the stope face, and a grab taken from each point to make up the stope sample. Generally a sample is taken at the start and end of each shift (first and last loader buckets) and then at intervals of about 15 buckets (approximately every 100-200 tonnes). Each sample weighs approximately 2kg.

Percussion chips: The surface exploration programme at Mufulira included chip sample from DTH percussion drilling. The chip samples were sampled over one metre intervals measured on the rod with the sample taken from the accumulated dust pile adjacent to the collar.

Diamond coring is used to delineate the orebody underground. Drill hole spacing is variable depending on the drill hole target, the position of primary development and requirements of the hole. Exploration holes are generally drilled to NQ size as well as BQ/BX size by conventional techniques, depending on the drill rig used. Routine sampling drill holes are drilled to AXT and BQ sizes. Routine orebody delineation holes are spaced at approximately 20 – 30m whilst deeper exploration types of holes are spaced at up to 100m or

greater. Intersection points are targeted mainly along strike with the down dip target tending to be constrained by the collar location sited in the geological footwall.

All drill holes are logged for lithology and structural characteristics (mainly dip and mineralisation). Recovery measurements are part of the logging process. Once logging is completed all drill holes are plotted on plan and section. Holes oblique to section are plotted by either perpendicular or strike/dip projection to the nearest section. Core from all exploration drill holes is photographed.

Core from exploration boreholes is split in half by cutting with a manual feed diamond saw. One half of the split core is submitted for analysis. The remaining half is retained along with the remainder of the borehole and stored in the well maintained Mufulira mine geology core shed.

Where core is not split (i.e. routine sampling drill holes) the entire mineralised intercept is submitted for analysis. The remaining core from these holes is discarded when assay results have been received and checked against the original log.

All samples are crushed, riffle split, and then pulverised to a 250g sub 80 micron sample. Coarse rejects are retained until such time that results have been checked and verified against the original logs.

Chippings from sludge holes are hand sampled by random grabs after thorough mixing of the wet material. Approximately 2kg of sample from each drill run is submitted for analysis, where it is dried before pulverising and assaying. The remaining material from the percussion hole is discarded.

All samples are numbered sequentially, including the duplicate and blank samples identified. After every 10th sample a blank is inserted, consisting of Mufulira grey granite with a known TCu of 0.1%. In the document on sampling procedures, “Procedure on Borehole Core Logging, Sampling and Data entry into Geological Database”, no mention is made on the inclusion of duplicate samples. Personal communication to GAA, however, revealed that more or less every 10th sample is duplicated by quartering the core for the exploration drill holes. No standard samples are submitted. The sample is then put into a plastic bag with two sample tags with the sample number on inside the bag.

The Geology Department records the sample numbers and the variable(s) to be analysed for in a sampling book, and the samples are then transported to the local laboratory, where the person in charge of the sample preparation checks the samples and signs for it. By this, sample custody is transferred to the laboratory.

All drill hole collars, bearing, inclination and elevations are located by survey. Chip sampling and sludge hole collars, bearing, inclination and elevations are located by sectional geological samplers from 1:200 plans and sections using known survey pegs, checked by geologists and entered into the geological database.

The drill hole databases were validated in Access using the filter key to search for missing data in the mandatory tables (collar and survey). In the collar table, the X, Y, Z and final depths were checked for blanks or zeros. In the survey table the depths, azimuths and dip were checked for blanks as well as missing survey data for collar and assay data. The databases received were clean and no major errors were found.

3.4 Quality Assurance and Quality Control

Mopani Copper Mines has two laboratories, one at Nkana and the other at Mufulira. Both are ISO accredited for Quality Management System ISO9001:2008. The certificate expires in January 2013. Inter-laboratory analysis is conducted every three months at the Mufulira Mine laboratory. The referee laboratory for samples is the Alfred H Knight Laboratory in Kitwe which is SANAS accredited (T0141).

3.4.1 Nkana

GAA completed a QA/QC duplicate sample analysis for the crushed duplicate samples. At the time 20 pairs of duplicates were provided from the SOB-Central database. The analysis is described in more detail below.

The results from the analysis show that the average precision for %TCu duplicates is 74.8% for 95% of the samples and the average precision for the %TCo duplicates is 48.4% for 95% of the samples. For both the

%TCu and the %TCo duplicates the precision is not within acceptable limits. This may be attributable to the differences noted between mineralisation in the two halves of the core.

GAA analysed the results from the Standard samples, as supplied by geology, as well as from the laboratory. The statistical information for the standards is summarised in Table 2.

Table 2: Statistics for the Standards used at Mopani Mine

Division	Standard	%TCu				%TCo			
		Min	Max	Ave	1 std dev	Min	Max	Ave	1 std dev
Geology	SWA 1	1.03	1.11	1.06	0.020	0.049	0.055	0.052	0.002
	SWA 2	2.04	2.04	2.11	0.039	0.074	0.080	0.077	0.002
Laboratory	Nk51	2.08	2.48	2.28	0.200	0.137	0.177	0.157	0.020
	Nk52	1.64	2.04	1.84	0.200	0.069	0.109	0.089	0.020
	Nk53	1.65	2.05	1.85	0.200	0.088	0.128	0.108	0.020
	Nk54	1.50	1.90	1.70	0.200	0.069	0.109	0.089	0.020

This information was used to plot the analysed value versus the standard values for both the geology samples and the laboratory samples.

A criterion of +/-2 times the standard deviation of the average value is an accepted failure criteria for interpreting standards. It can be seen from the graphs that the majority of the samples in the geology are plotting outside of 2 times the standard deviation. It is advised that the batches to which these samples belong will be reanalysed before the QA/QC of these samples can be fully accepted. In the case of the laboratory only tolerances were provided and these were assumed to be standard deviations from the mean. The results for these standards were within acceptable limits.

3.4.2 Mufulira

GAA completed a QA/QC duplicate sample analysis for the duplicate samples. Duplicates for 139 pairs of duplicates were provided from the database. The analysis is described in more detail below.

The results from the analysis show that the average precision for %TCu duplicates is 34.1% for 95% of the samples. The average HARD for this dataset is 14.08%.

GAA received the results from 42 blank samples submitted since August 2007. These blank samples are from grey Mufulira granite with an expected result of 0.1%TCu. The graphed results are shown in Figure 3. From this graph it is clear that contamination does occur from time to time.

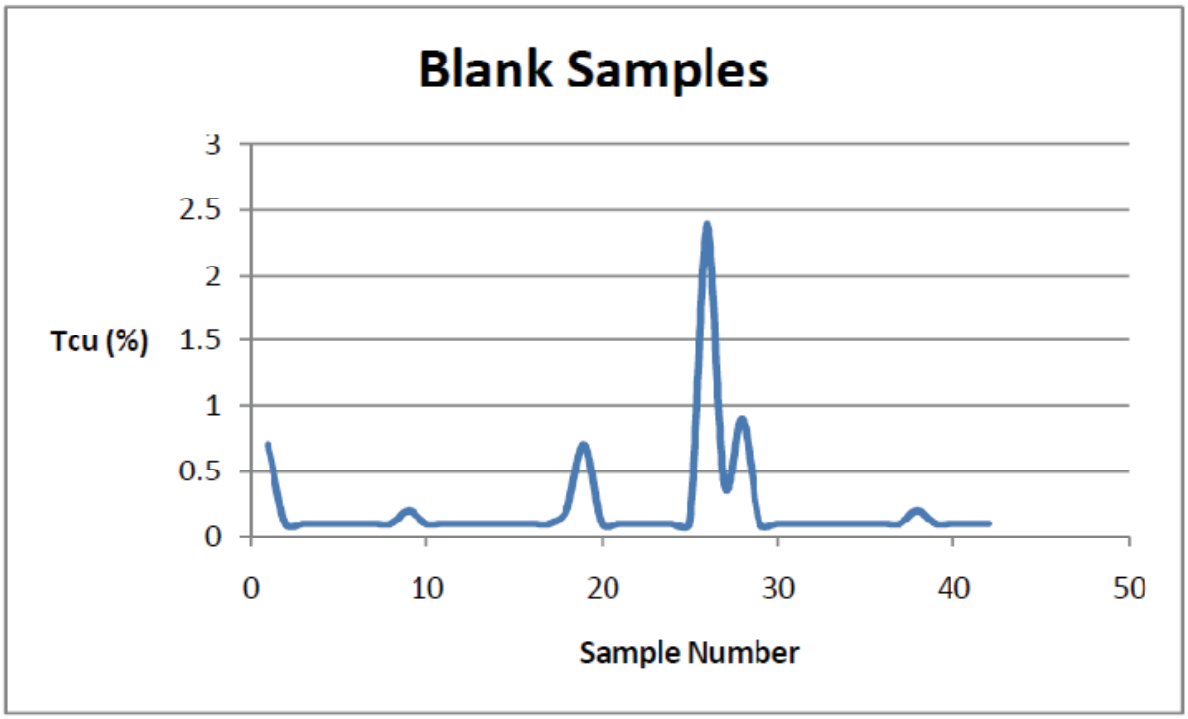


Figure 3: Results from the Blank Samples

3.5 Geological Modelling

The geological solids used for the estimation for the Nkana and Mufulira operations are shown in Figure 4; Figure 5 and Figure 6, respectively.

The geological interpretations were done by Mopani and were digitized in Surpac geological modelling software. However, due to complex geology, SOB and Central Shaft sections were manually done and imported into Surpac via a digitiser tablet.

A 1% TCu cut-off was used for interpreting the mineralized zones.

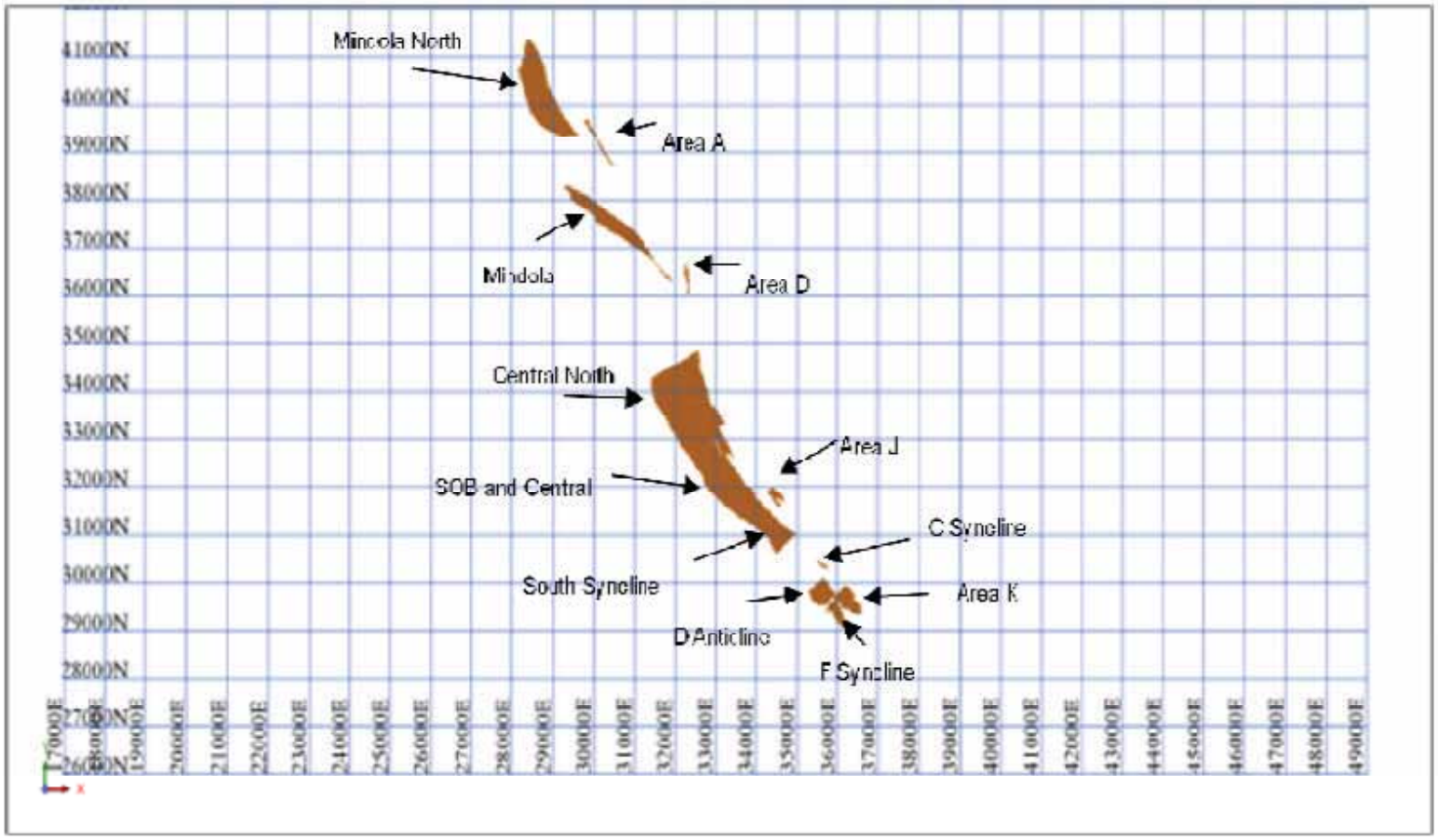


Figure 4: Wireframes of the mineralized areas - Nkana

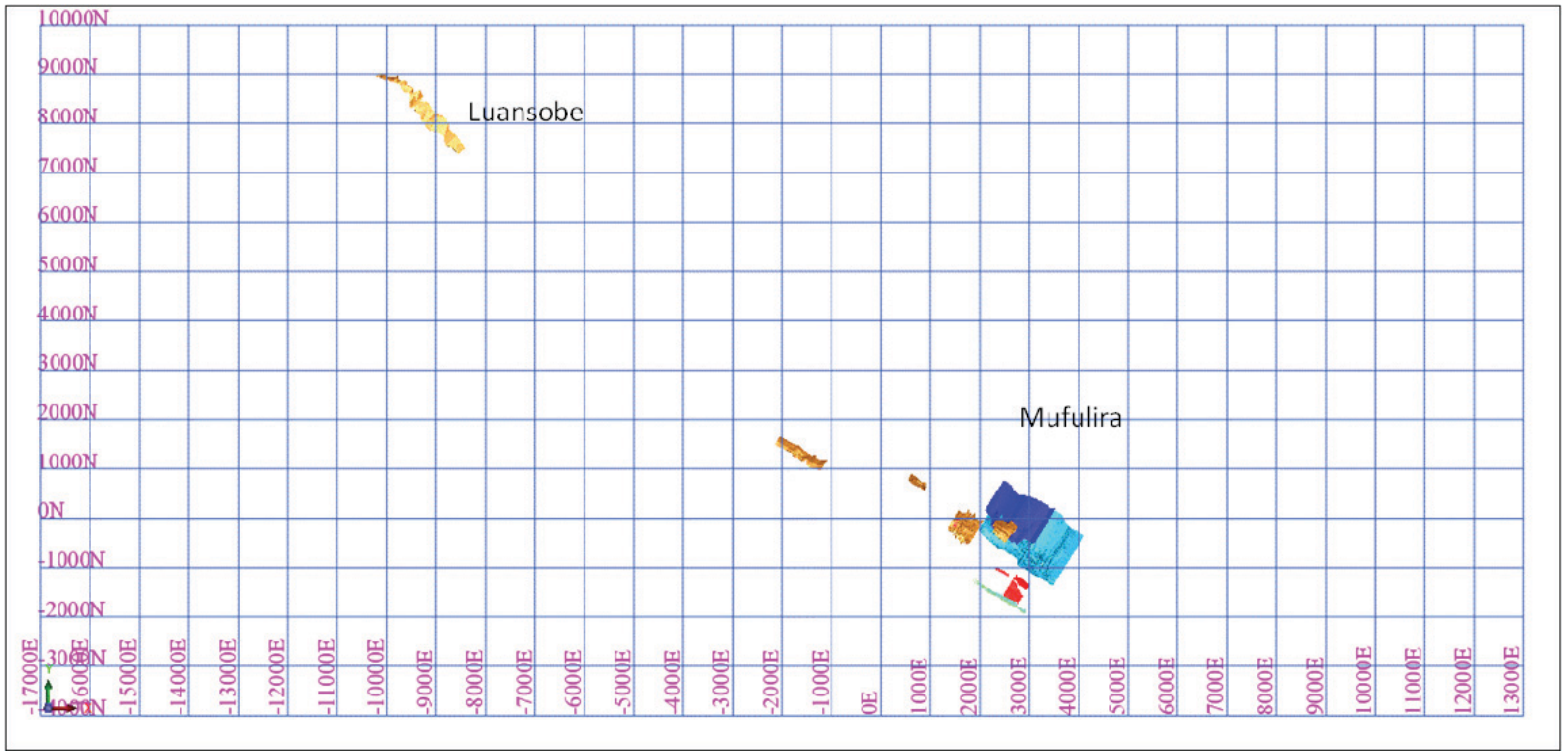


Figure 5: Mufulira Solids relative to the Luansobe Solids

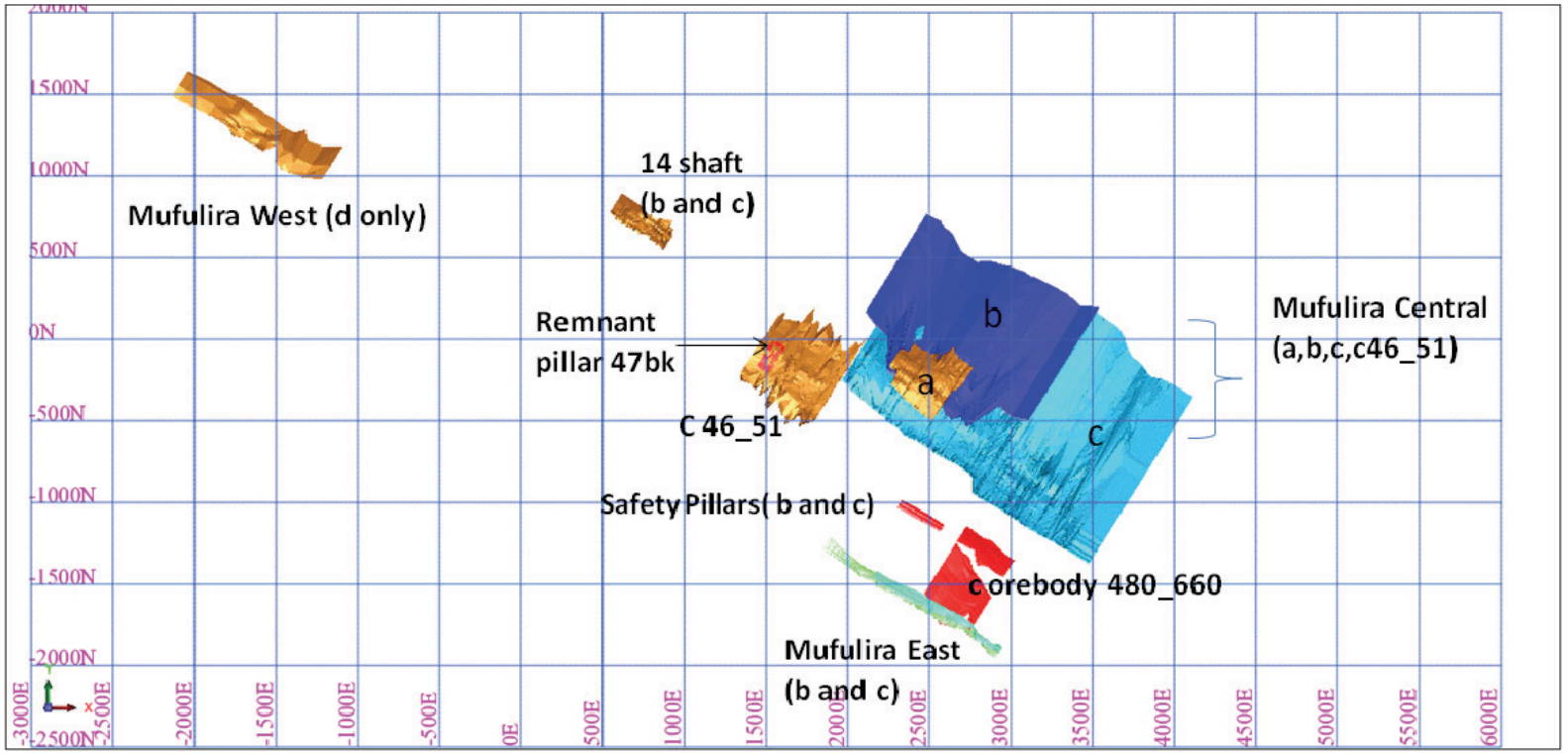


Figure 6: Solids for the mineralized areas in Mufulira

3.6 Variography Analysis

Statistical analysis was conducted on composited data in order to understand the underlying distribution for each project area, as well as to understand the differences in grade between different sample support types. The two different drill types found in project areas include diamond drilling and chip samples. The different types of sampling imply different types of sample support and there is different level of confidence associated to the different types of sampling. There is a much higher confidence in the diamond drilling because chip sampling can at times be selective to softer lithologies, which are normally the ore zones, and often causes smearing of the data. It is therefore imperative to understand the underlying distributions of the different drill types to understand whether these datasets can be combined.

The diamond borehole samples were used for estimation.

Variographic analysis of the variables was performed in Surpac. The spherical model was used to derive all variogram parameters from the experimental variograms.

Spherical model variograms were generated using the lag modelled according to the typical drill hole spacing for each project area.

The nugget variances were modelled from experimental down hole variograms based on a straight composite of 1m. The down hole variograms provided the nugget for the variogram model.

Table 3: Parameters Used for the Down hole Variogram Generation

Parameter	Value
Azimuth	0
Plunge	0
Spread	90
Lag	0.5
Maximum Distance	50

The type of variogram generated for each of the project areas is shown in Table 4 and Table 5.

Table 4: Nkana Variogram Types

Project Area	Variogram Type
Mindola North	Omni-directional
Area A	Directional
Mindola	Omni-directional
Area D	Directional
Central North	Omni-directional
Central and SOB	Omni-directional
South Syncline	Omni-directional
ZJ Limb	Omni-directional
Area J	Directional
C Syncline	Omni-directional
D Anticline	Omni-directional
	Omni-directional
F Syncline	Omni-directional
Area K	Directional

Table 5: Mufulira Variogram Types

Project Area	Variogram Type
Luansobe	ID^2
Mufulira West	Omni directional
14 Shaft B orebody	Omni directional
14 Shaft C orebody	Omni directional
Mufulira Central A orebody	Omni directional
Mufulira Central B orebody	Omni directional
Mufulira Central orebody	Omni directional
Mufulira Central C46_51 orebody	Omni directional
Mufulira East B orebody	Omni directional
Mufulira East C orebody	Omni directional
Remnant Pillar 47	Omni directional
Safety Pillar B	Omni directional
Safety Pillar C	Omni directional
Safety Pillar Middling	Omni directional
C orebody 480_660	Omni directional

3.6.1 Nugget Inference

The variogram nugget variance was modelled by calculating down hole variograms using a lag of 1m as majority of the sample spacing was 1m in length.

3.6.2 Variography Results

3.6.2.1 Nkana

The spherical model variograms from the variography to be used in the estimation are tabulated in Table 6 and Table 7.

Table 6: Nkana variography results for all the omni-directional variograms

Area	Domain	Variable	Nugget	Sill1	Range1	Sill2	Range2
Mindola North	Diamond	%TCu	0.020	1.022	66	0.537	108
		%TCo	0.001	0.017	10	0.003	101
Mindola North	Chip	%TCu	0.035	0.824	18	0.348	263
		%TCo	0.002	0.007	20	0.001	67
Mindola		%TCu	0.083	1.341	8	0.368	150
		%TCo	0.001	0.020	16	0.003	240
Central North		%TCu	0.057	1.065	11	0.123	159
		%TCo	0.002	0.02	7	0.018	44
SOB and Central	East	%TCu	0.115	1.020	12	0.327	215
		%TCo	0.001	0.008	23	0.002	119
	Middle	%TCu	0.283	1.048	15	0.531	96
		%TCo	0.001	0.008	19	0.001	119
	West	%TCu	0.099	1.766	17	0.445	37
		%TCo	0.000	0.004	20	0.005	64
South Syncline		%TCu	0.052	0.835	18	0.713	96
		%TCo	0.000	0.007	12	0.002	70
ZJ_Limb		%TCu	0.019	0.392	42	0.181	83
		%TCo	0.000	0.006	112	-	-
C_Syncline		%TCu	0.027	0.520	11	0.177	74
		%TCo	0.000	0.001	47	0.001	80
D_Anticline	Domain 1	%TCu	0.022	0.712	7	0.181	51
		%TCo	0.000	0.004	7	0.009	121
	Domain 2	%TCu	0.013	0.750	8	0.148	61
		%TCo	0.000	0.003	10	0.002	61
F Syncline		%TCu	0.037	0.629	26	0.123	91
		%TCo	0.000	0.003	4	0.002	41
		%ASCu	0.000	0.007	16	0.02	68

Table 7: Nkana variography results for all the directional variograms

Area	Variable	Nugget	Major					Semi major			Minor		
			Sill1	Range1	Sill2	Range2	Maj-Dir	Range1	Range2	Semi-Dir	Range1	Range2	Minor-Dir
Area A	%TCu	0.250	2.55	30	0.770	200	130	15	125	40	9	30	90
	%TCo	0.002	0.013	50	0.003	200	120	25	100	30	5	20	90
	%ASCu	0.190	2.60	75	0.480	200	150	25	75	60	5	22	90
	%ASCo	Not Estimated											
Area D	%TCu	0.150	1.55	20	0.360	220	110	15	125	20	9	30	90
	%TCo	0.002	0.013	50	0.003	200	120	25	100	30	5	20	90
	%ASCu	0.320	3.33	75	1.40	200	160	25	75	70	5	22	90
	%ASCo	Not Estimated											
Area J	%TCu	2.20	6.26	35	0.200	200	130	30	200	40	7	30	90
	%TCo	0.003	0.040	45	0.006	250	120	35	100	30	6	19	90
	%ASCu	2	4.70	30	0.900	225	120	30	90	30	8	30	90
	%ASCo	Not Estimated											
Area K	%TCu	0.260	2.05	55	0.030	250	160	40	173	70	3	20	90
	%TCo	0.002	0.009	55	0.004	250	160	50	200	70	7	30	90
	%ASCu	0.120	0.640	100	0.220	200	160	50	150	70	3	17	90
	%ASCo	Not Estimated											

3.6.2.2 *Mufulira*

The spherical model variograms from the variography to be used in the estimation are tabulated in Table 8.

Table 8: Mufulira variography results for all the omni-directional variograms

Area	Domain	Variable	Nugget	Sill1	Range1	Sill2	Range2
Luansobe		%TCu	ID^2 Estimation				60.000
		%ASCu	ID^2 Estimation				60.000
Mufulira West		%TCu	0.018	0.760	13.230	0.230	52.000
		%ASCu	0.006	0.430	3.960	0.270	55.000
14 Shaft	B	%TCu	0.057	0.120	2.080	0.290	34.000
	C	%TCu	0.004	0.380	13.810	0.380	127.300
Mufulira Central	A	%TCu	0.032	6.100	3.710	0.560	69.700
	B	%TCu	0.070	1.430	17.260	0.600	203.360
	C	%TCu	0.130	1.360	14.930	1.100	271.990
	C46_51	%TCu	0.008	1.160	9.500	0.360	184.360
Mufulira East	B	%TCu	0.000	12.170	62.670	-	-
		%ASCu	0.013	0.660	7.300	0.220	48.700
	C	%TCu	0.145	2.560	7.840	1.250	52.040
		%ASCu	0.008	1.850	7.940	0.795	33.160
Safety Pillars	B	%TCu	0.000	8.210	53.550	-	-
	C	%TCu	0.001	0.860	4.700	0.150	36.700
	Middling	%TCu	0.002	0.190	3.160	0.220	19.700
C orebody 660		%TCu	0.006	1.400	5.940	0.320	38.200

3.7 Estimation Parameters

3.7.1 Block Model

Change of support was conducted on some of the project areas to determine the optimal block size. The geological block models were validated by comparing the solids volume to the block model volume as shown in Table 9 and Table 10. No major differences were noted.

Table 9: Summary of solid volumes versus block volumes for Nkana

Area	Wireframe Volume (cm^3)	Block Model Volume (cm^3)	% Difference
Mindola North	9,201,694	9,201,310	-0.00
Area A	452,758	452,750	-0.00
Mindola	23,201,325	23,208,246	0.03
Area D	283,232	282,200	-0.37
Central North	45,018,732	44,693,300	-0.73
Central, SOB and South Syncline	94,852,825	94,856,732	0.00
ZJ Limb	1,717,471	1,686,850	-1.82
Area J	1,756,689	1,753,475	-0.18
C Syncline	658,668	659,094	0.06
D Anticline	3,109,318	3,109,419	0.00
F Syncline	1,749,760	1,750,475	0.04
Area K	2,391,118	2,392,875	0.07

Table 10: Summary of solid volumes versus block model volumes for Mufulira

Area	Wireframe Volume (cm^3)	Block Model Volume (cm^3)	% Difference
Luansobe	4,072,755	4,074,175	0.035
Mufulira West	7,210,405	7,210,313	0.00
14 Shaft B orebody	1,808,936	1,808,936	0.00
14 Shaft C orebody	2,725,472	2,677,875	-1.78
Mufulira Central A orebody	1,556,499	1,555,694	-0.052
Mufulira Central B orebody	9,939,852	9,914,913	-0.252
Mufulira Central C orebody	26,175,715	26,060,706	-0.441
Mufulira Central C46_51 orebody	4,151,052	4,151,681	0.015
Mufulira East B orebody	238,441	238,188	-0.11
Mufulira East C orebody	783,042	783,325	0.04
Safety Pillar B	96,618	96,631	0.01
Safety Pillar C	145,069	145,419	0.24
Safety Pillar Middling	110,696	110,600	-0.09
C orebody 480_660	467,053	467,063	0.00

3.7.1.1 Nkana

It was decided that a block size of 20x20x4 would be used for all the areas to allow for combining of block models at a later stage. The sub-block size used was 5m x 5m x1m to allow for easier reporting.

3.7.1.2 Mufulira

It was decided that a block size of 10x10x4 would be used for all the areas to allow for combining of block models at a later stage. The sub-block size used was 2.5m x 2.5m x 1m to allow for easier reporting.

3.7.2 Estimation Plan

Ordinary Kriging ("OK") was used, which is a specific algorithm that satisfies the requirement for objective results by ensuring that the kriging weights in the local estimation are summed to 1. The grade interpolation was carried out in Surpac.

A four pass estimation plan was used to enable estimation of the full volume of the block models. Estimation pass quality and reliability decreases with each increasing pass. The passes were based on the following:

- Pass 1: 2/3 of the range of the variogram;
- Pass 2: the variogram range;
- Pass 3: 1.5 times the variogram range; and
- Pass 4: Global Average.

In each pass a minimum of 4 and maximum number of 25 samples were used and only the ranges were changed.

3.7.3 Density Assignment

3.7.3.1 Nkana

From as early as 1945, SG determinations were carried out at Nkana Mine. With over 358 determinations over the years, a weighted average bulk density of 2.79 t/m^3 was arrived at. This is 9% higher than the 2.56 t/m^3 that is currently been used for resource calculations.

GAA believes that this density may be on the conservative side and deems to the value of 2.56 t/m^3 to be acceptable.

3.7.3.2 Mufulira

In the document "Mineral Resources and Mineral Reserves Statement as at 1st January 2010" as received from Mufulira Mine, it is noted that to convert the volumes from modelling to tonnages, a SG of 2.65 t/m^3 for most of the areas is used, except for Mufulira West, where a value of 2.5 t/m^3 was used based on historical information.

The density values used for conversion of volume to tonnage in each project are shown in Table 11.

Table 11: Mufulira density values assigned for tonnage calculations

Project Area	Density t/m^3
Luansobe	2.50
Mufulira West	2.50
14 Shaft B orebody	2.65
14 Shaft C orebody	2.65
Mufulira Central A orebody	2.65
Mufulira Central B orebody	2.65
Mufulira Central C orebody	2.65
Mufulira Central C46_51 orebody	2.65
Mufulira East B orebody	2.50
Mufulira East C orebody	2.50
Safety Pillar B	2.65
Safety Pillar C	2.65
C orebody 660	2.65

3.7.4 Block Model Validation

The average grade conformance is a global representation over the entire domain. To assess average grade conformance progressively across the deposits, swaths plots were used. In these plots, both data and model estimates are averaged into Easting, Northing and RL slices and the conformance of grade is assessed for each slice, in a particular direction.

Overall in the project areas, the average grade conformance on the swath plots is acceptable with underestimation of high grade samples and overestimation of the low grade samples, resulting in a smoothed estimate. This is to be expected when interpolating using the OK method.

3.7.5 Nkana Grade Distribution

3.7.5.1 Mindola North

The %TCu and %TCo grade distribution for Mindola North is shown in Figure 7.

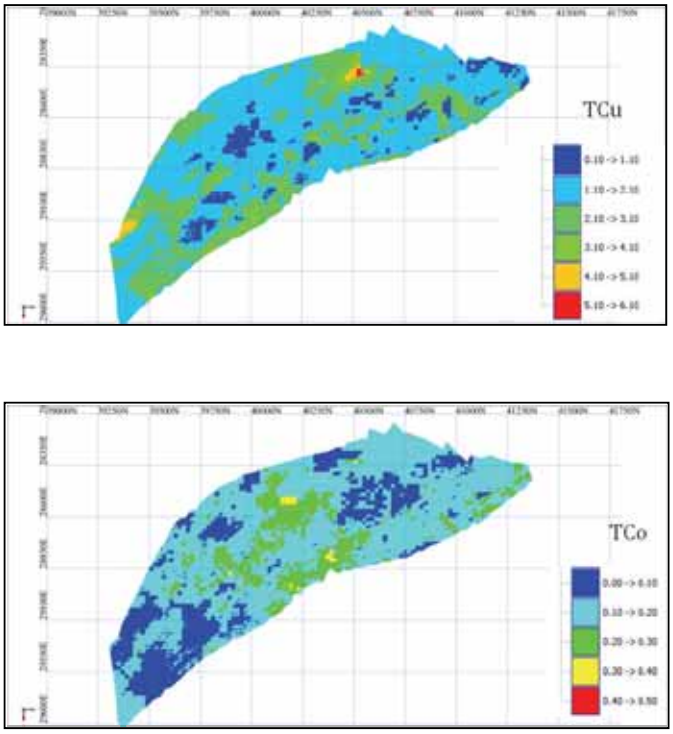


Figure 7: Distribution of %TCu and %TCo grades for Mindola North

3.7.5.2 Area A

The %TCu, %TCo and %ASCu grade distribution for Area A is shown in Figure 8.

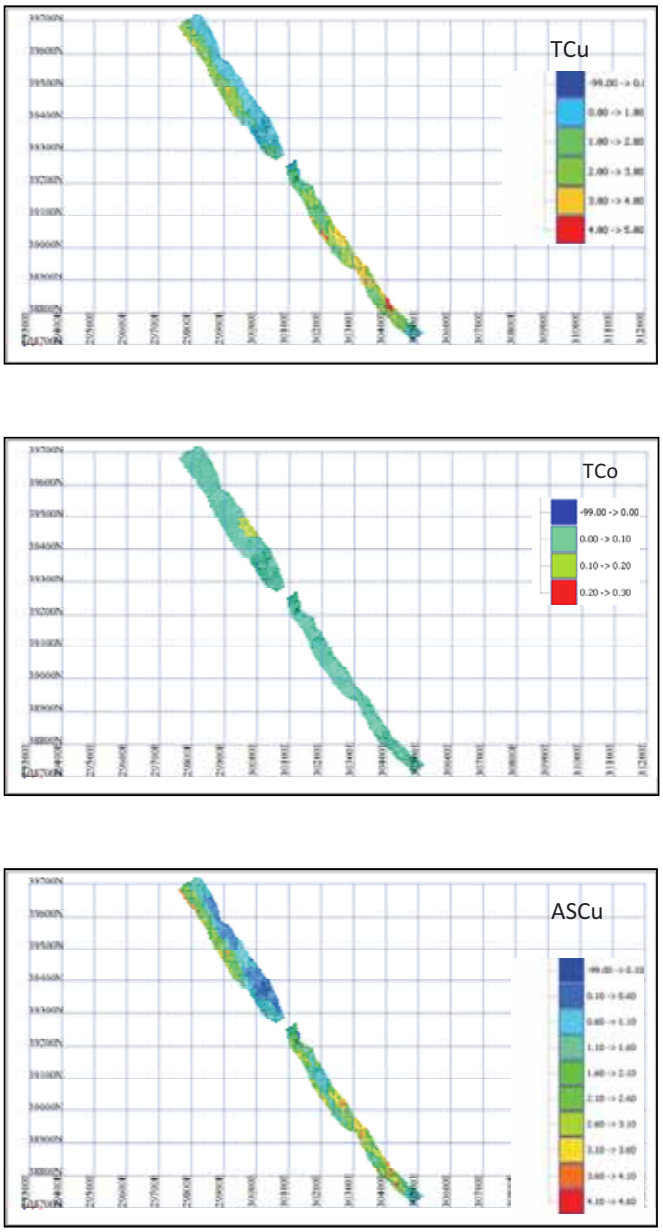


Figure 8: Distribution of %TCu, %TCo and %ASCu grades for Area A

3.7.5.3 Mindola

The %TCu and %TCo grade distribution for Mindola is shown in Figure 9.

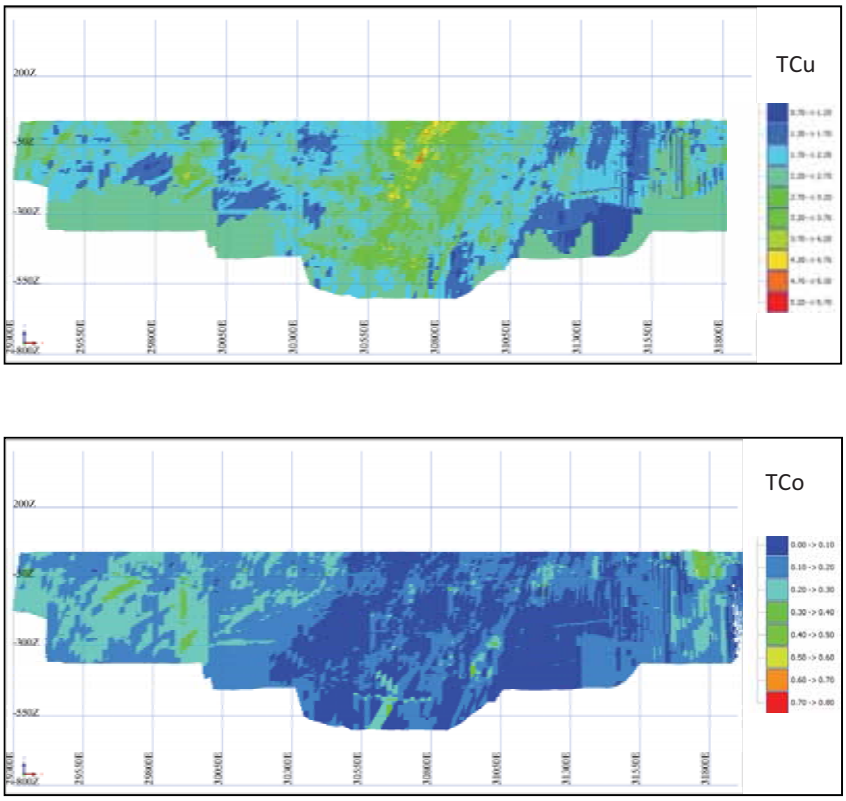


Figure 9: Distribution of %TCu and %TCo grades for Mindola

3.7.5.4 Area D

The %TCu, %TCo and %ASCu grade distribution for Area D is shown in Figure 10.

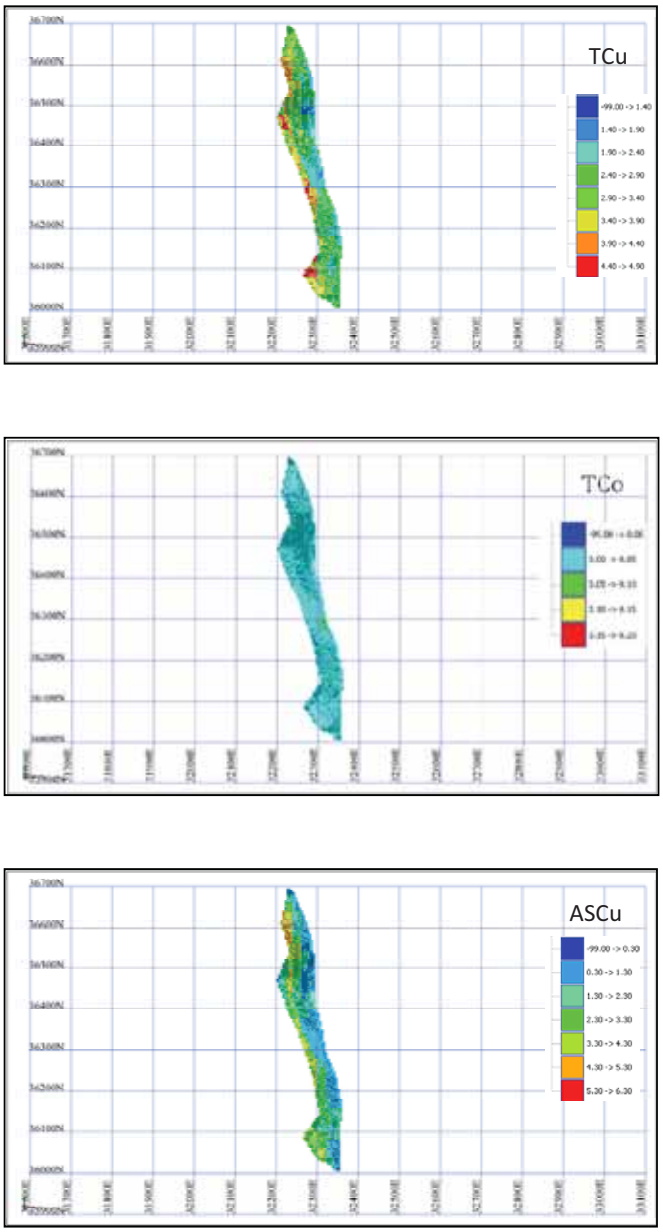


Figure 10: Distribution of %TCu, %TCo and %ASCu grades for Area D

3.7.5.5 Central North

The % TCu and % TCo grade distribution for Central North is shown in Figure 11.

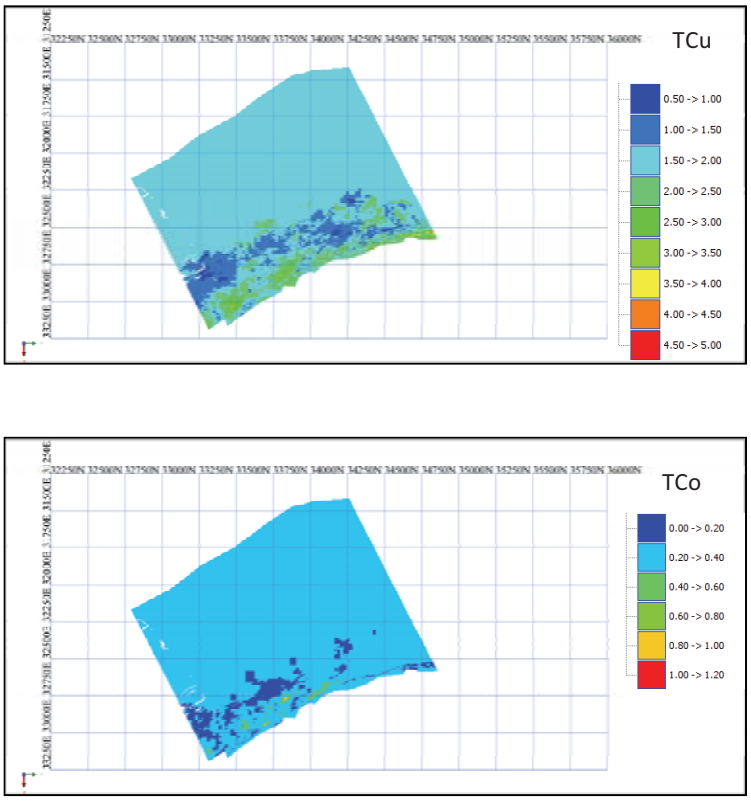


Figure 11: Distribution of %TCu and %TCo grades for Central North

3.7.5.6 SOB and Central

The % TCu and % TCo grade distribution for SOB is shown in Figure 12.

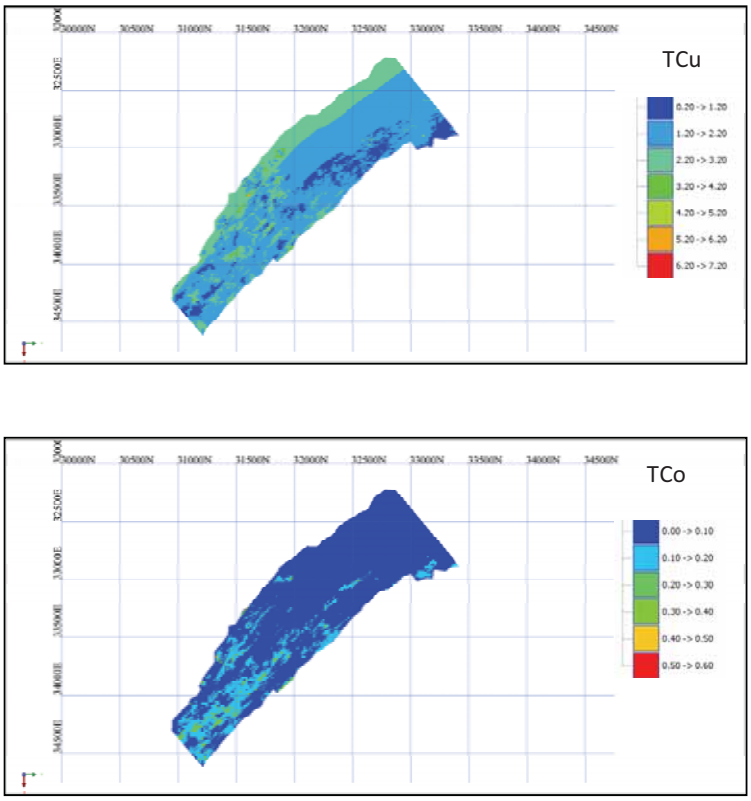


Figure 12: Distribution of %TCu and %TCo grades for SOB

3.7.5.7 South Syncline

The % TCu and % TCo grade distribution for South Syncline is shown in Figure 13.

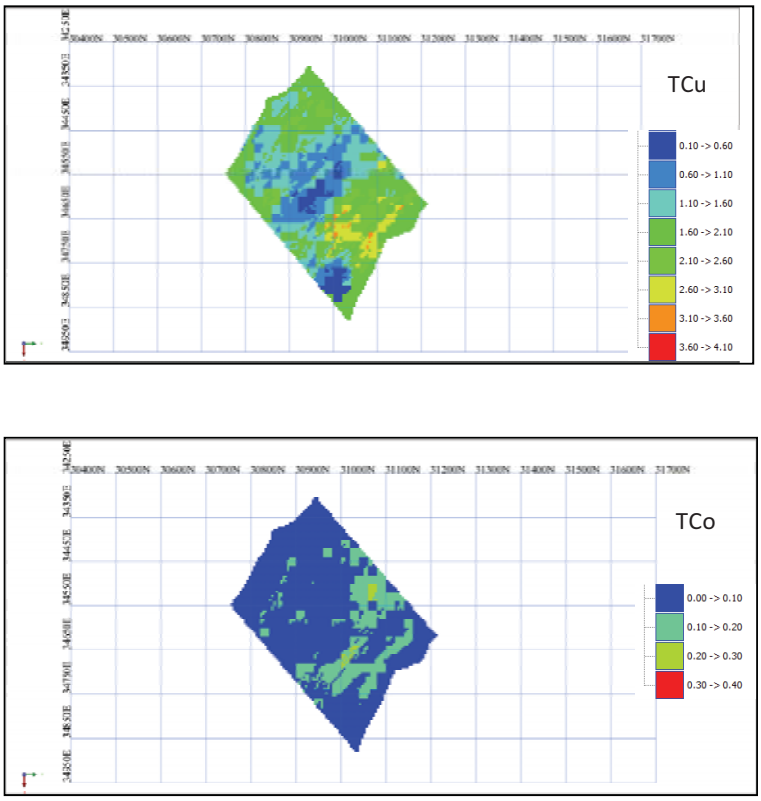


Figure 13: Distribution of %TCu and %TCo grades for South Syncline

3.7.5.8 ZJ Limb

The % TCu and % TCo grade distribution for ZJ Limb is shown in Figure 14.

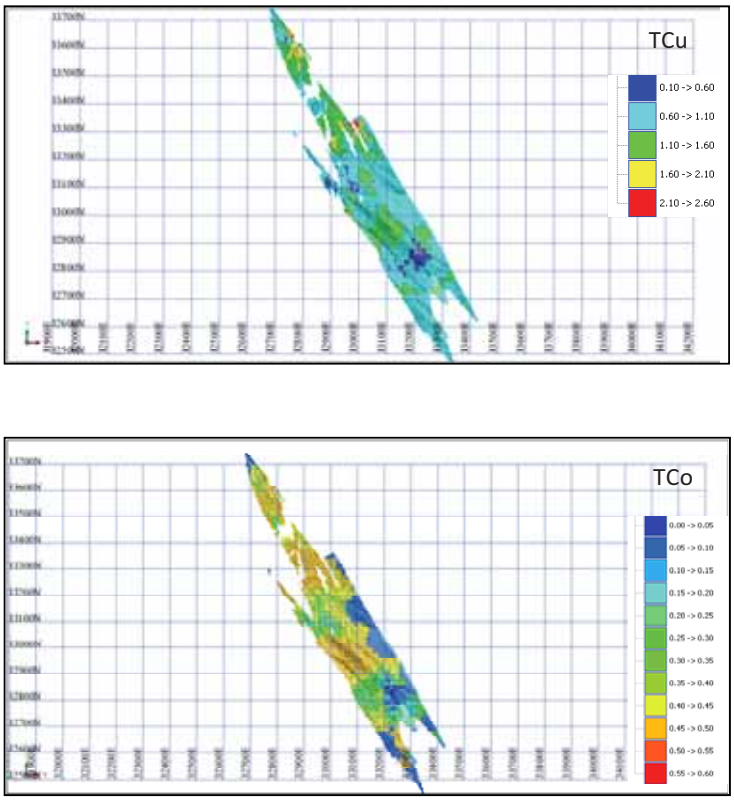


Figure 14: Distribution of %TCu and %TCo grades for ZJ Limb

3.7.5.9 Area J

The %TCu, %TCo and %ASCU grade distribution for Area J is shown in Figure 15.

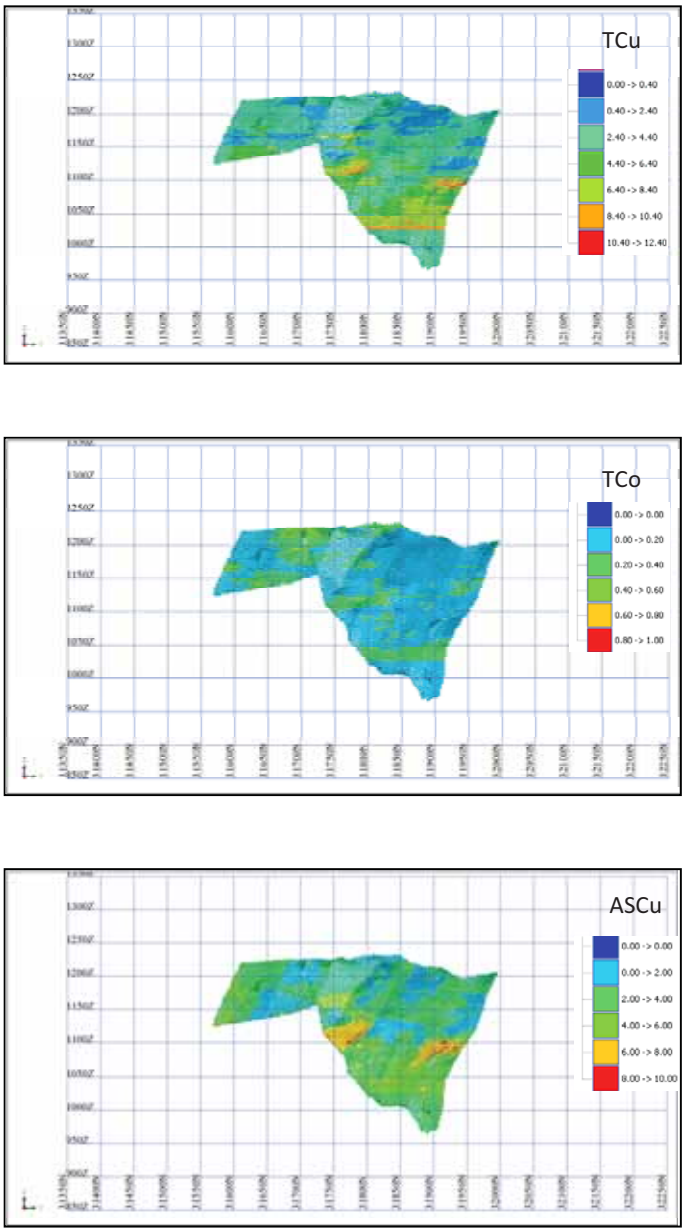


Figure 15: Distribution of %TCu, %TCo and % ASCu grades for Area J

3.7.5.10 C Syncline

The % TCu and % TCo grade distribution for C Syncline is shown in Figure 16.

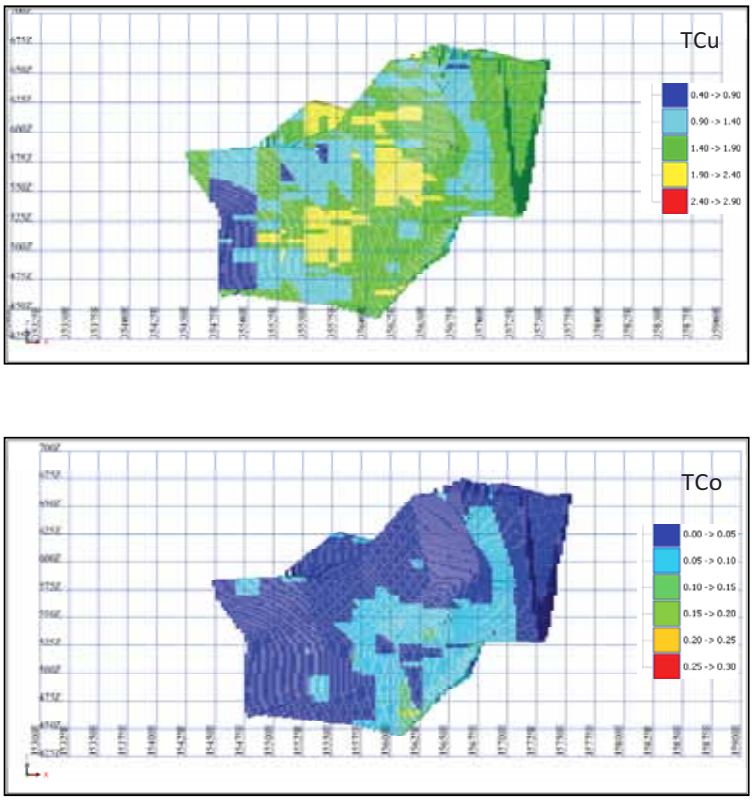


Figure 16: Distribution of %TCu and %TCo grades for C Syncline

3.7.5.11 D Anticline

The % TCu and % TCo grade distribution for D Anticline is shown in Figure 17.

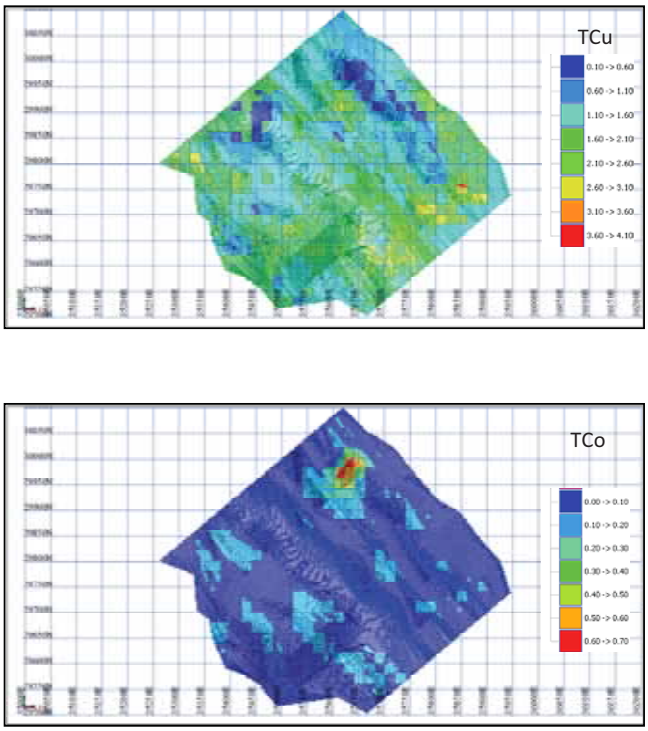


Figure 17: Distribution of %TCu and %TCo grades for D Anticline

3.7.5.12 F Syncline

The % TCu and % TCo grade distribution for F Syncline is shown in Figure 18.

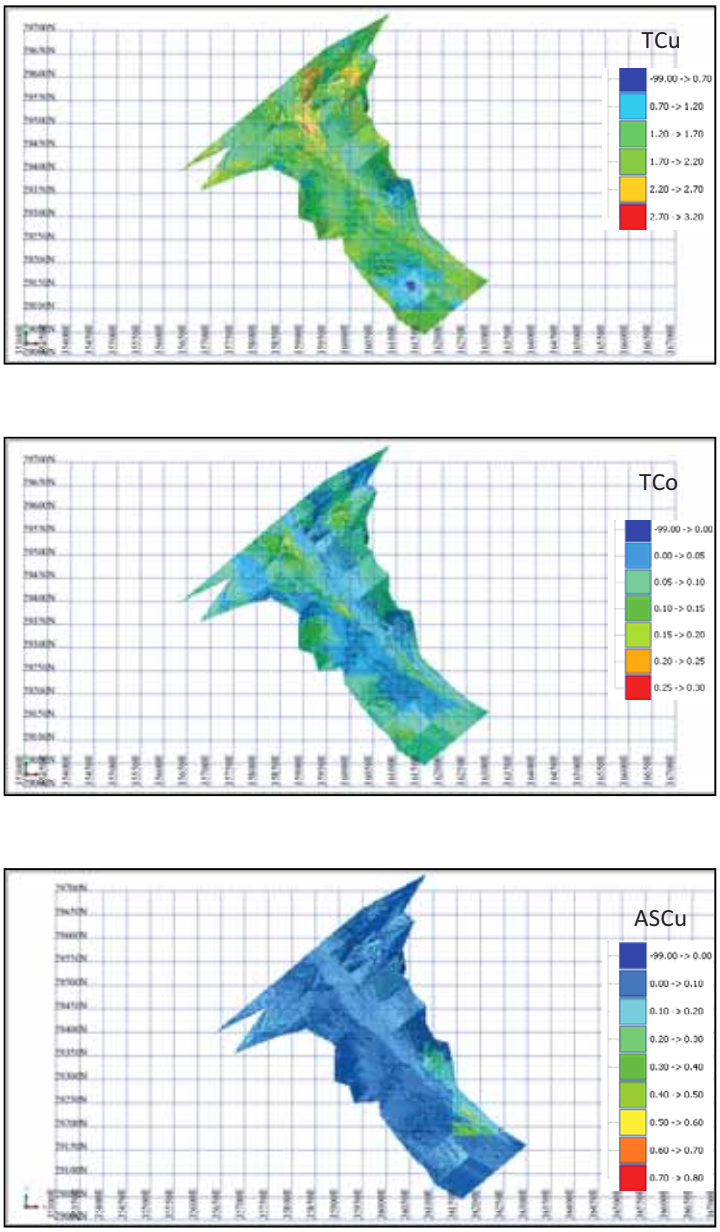


Figure 18: Distribution of %TCu, %TCo and %AScu grades for F Syncline

3.7.5.13 Area K

The %TCu, %TCo and %ASCu grade distribution for Area K is shown in Figure 19.

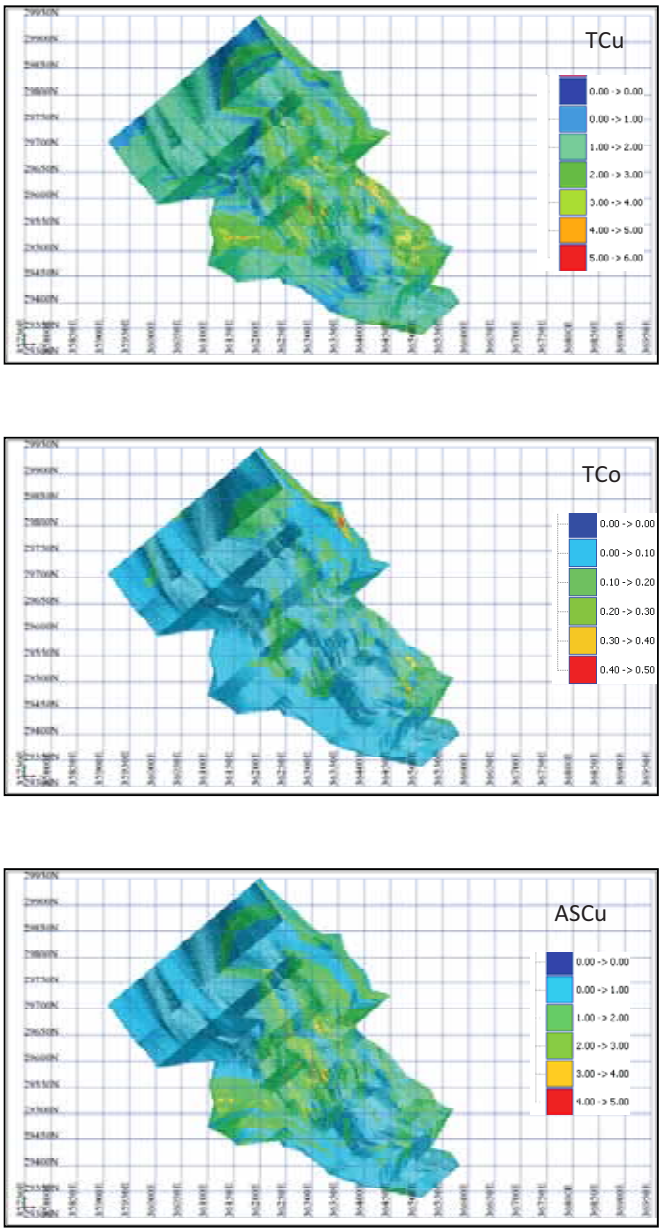


Figure 19: Distribution of %TCu, %TCo and %ASCu grades for Area K

3.7.6 Mufulira Grade Distribution

3.7.6.1 Luansobe

The %TCu and %ASCu grade distribution for Luansobe is shown in Figure 20.

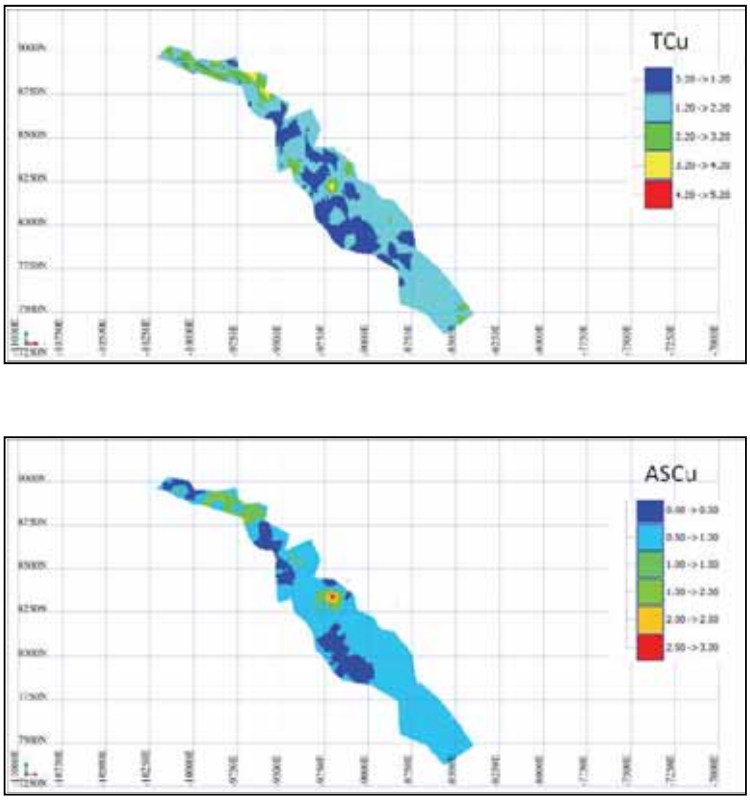


Figure 20: Distribution of %TCu and %ASCu grades for Luansobe

3.7.6.2 Mufulira West

The %TCu and %ASCu grade distribution for Mufulira West is shown in Figure 21

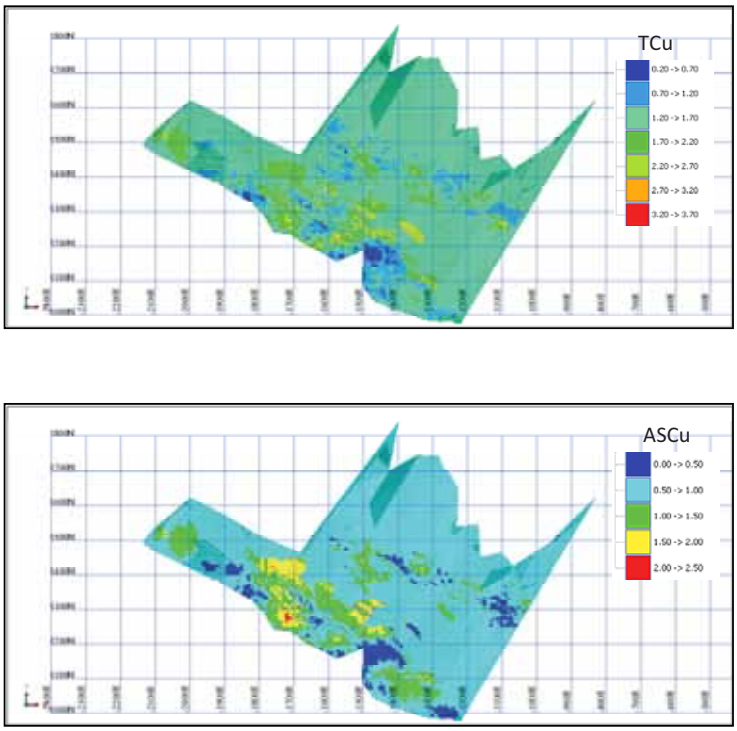


Figure 21: Distribution of %TCu and %ASCu grades for Mufulira West

3.7.6.3 14 Shaft B Orebody

The %TCu grade distribution for 14 Shaft B Orebody is shown in Figure 22.

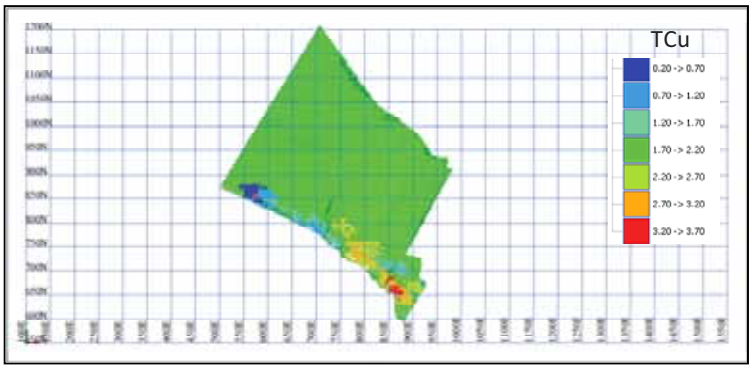


Figure 22: Distribution of %TCu grades for 14 Shaft B Orebody

3.7.6.4 14 Shaft C Orebody

The %TCu grade distribution for 14 Shaft C Orebody is shown in Figure 23.

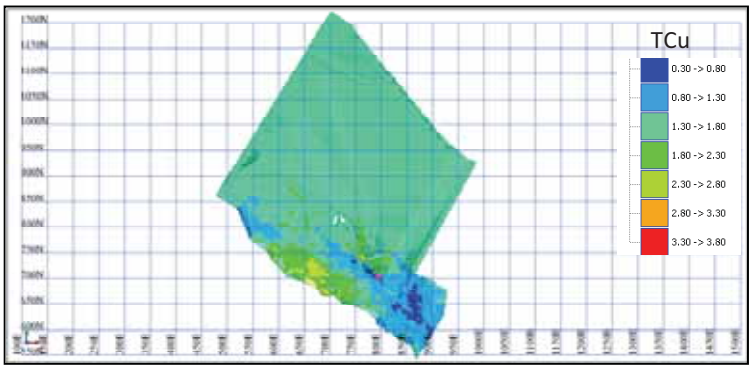


Figure 23: Distribution of %TCu grades for 14 Shaft C Orebody

3.7.6.5 Mufulira Central A Orebody

The %TCu grade distribution for Mufulira Central A Orebody is shown in Figure 24.

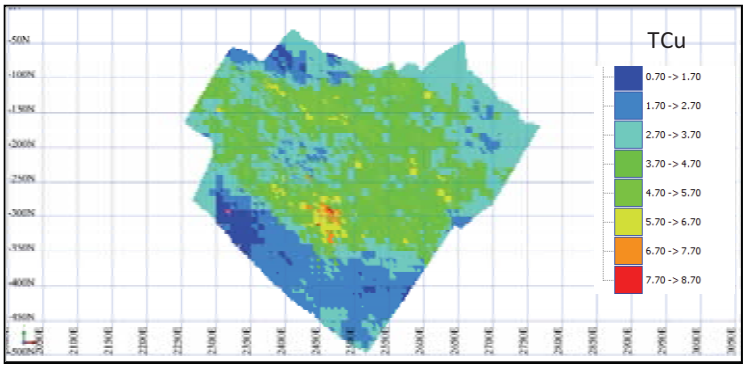


Figure 24: Distribution of %TCu grades for Mufulira Central A Orebody

3.7.6.6 Mufulira Central B Orebody

The %TCu grade distribution for Mufulira Central B Orebody is shown in Figure 25.

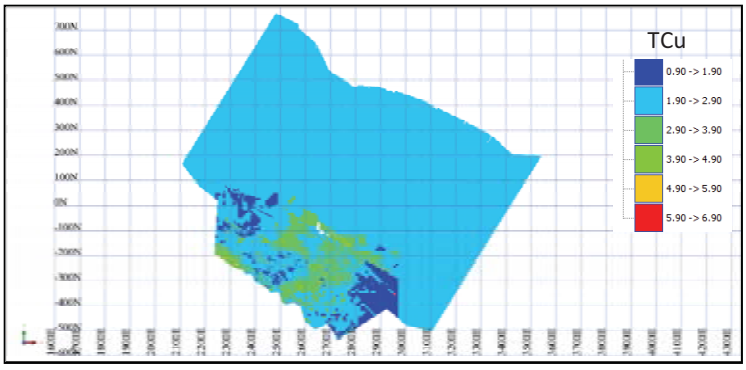


Figure 25: Distribution of %TCu grades for Mufulira Central B Orebody

3.7.6.7 Mufulira Central C Orebody

The %TCu grade distribution for Mufulira Central C Orebody is shown in Figure 26.

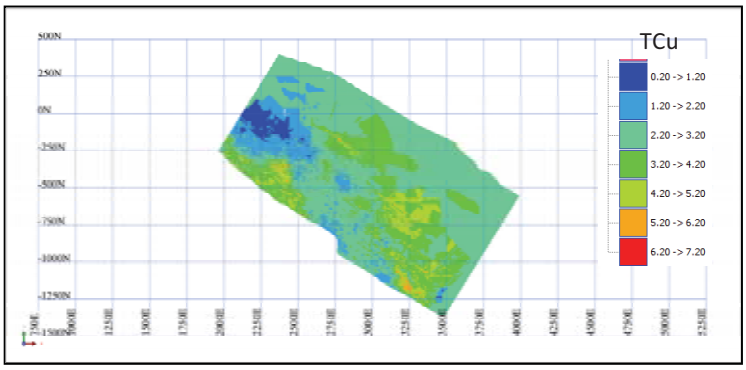


Figure 26: Distribution of %TCu grades for Mufulira Central C Orebody

3.7.6.8 Mufulira Central C 46_51 Orebody

The %TCu grade distribution for Mufulira Central C46_51 Orebody is shown in Figure 27.

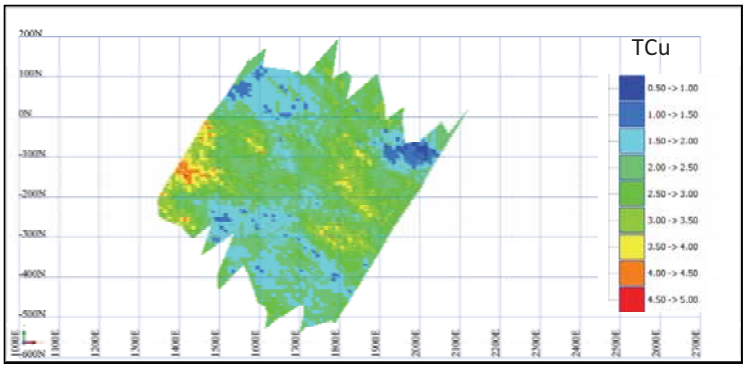


Figure 27: Distribution of TCu grades for Mufulira Central C46_51 Orebody

3.7.6.9 Mufulira East B Orebody

The %TCu and %ASCu grade distribution for Mufulira East B Orebody is shown in Figure 28.

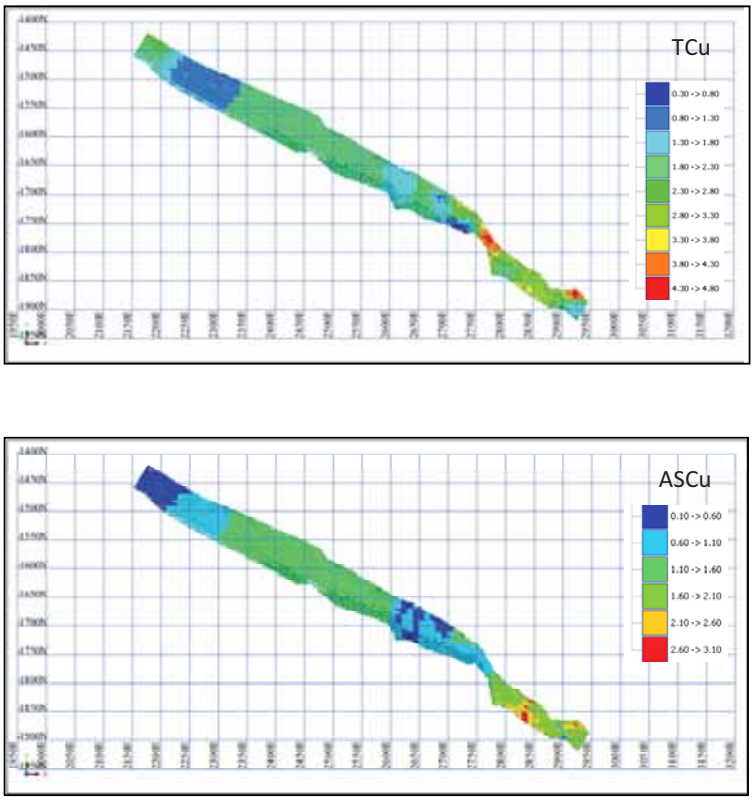


Figure 28: Distribution of %TCu and %ASCu grades for Mufulira East B Orebody

3.7.6.10 Mufulira East C Orebody

The %TCu and %ASCu grade distribution for Mufulira East C Orebody is shown in Figure 29.

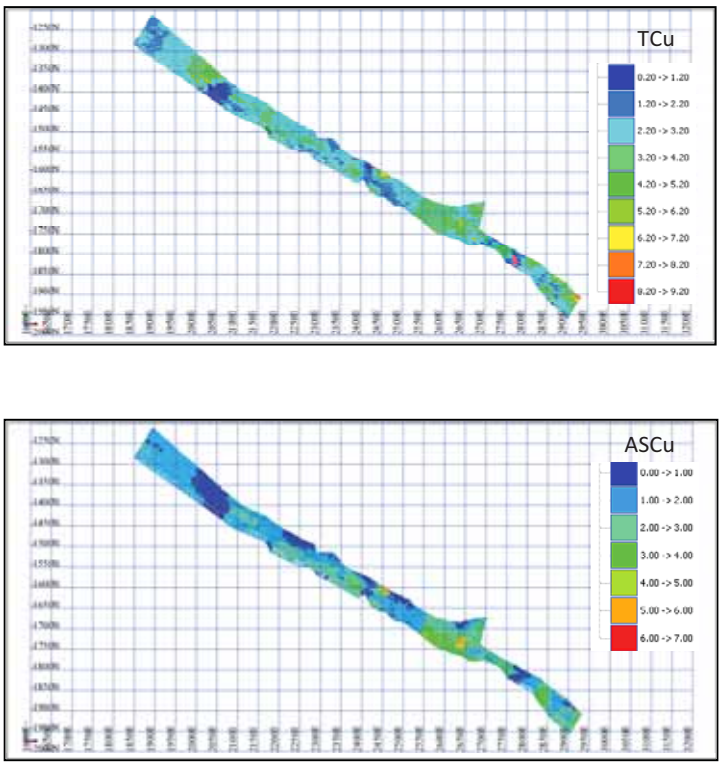


Figure 29: Distribution of %TCu and %ASCu grades for Mufulira East C Orebody

3.7.6.11 Safety Pillar B and C

The %TCu grade distribution for Safety Pillar B and C is shown in Figure 30.

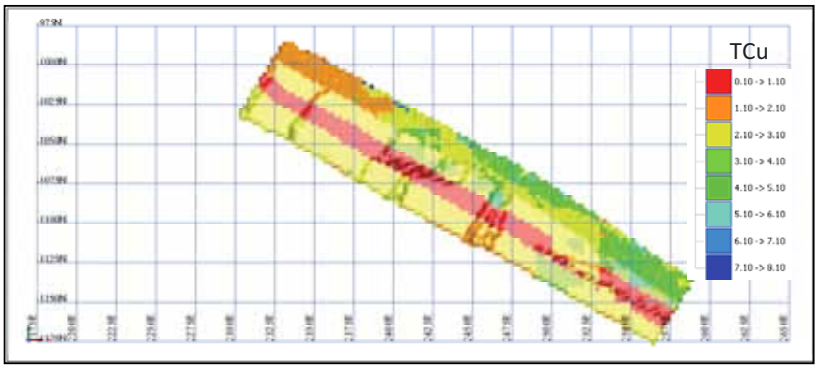


Figure 30: Distribution of %TCu grades for Safety Pillar B and C

3.7.6.12 C Orebody 660

The %TCu grade distribution for C Orebody 660 is shown in Figure 31.

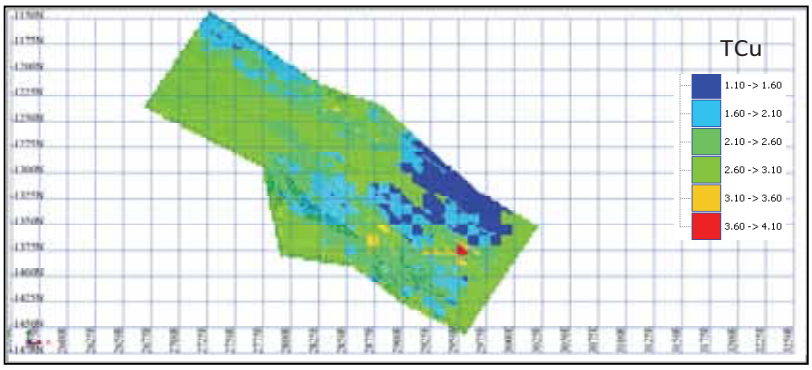


Figure 31: Distribution of %TCu grades for C Orebody 660

3.8 Mineral Resource Classification

3.8.1 Criteria for Classification

The Australian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves, more commonly known as the "JORC Code" was used for mineral resource classification. It describes a Mineral Resource as follows:

"A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are subdivided, in order of increasing confidence, into Inferred, Indicated or Measured categories."

It further describes an Inferred, Indicated and Measured Resource as follows:

"*An 'Inferred Mineral Resource' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with only a low level of confidence. It is inferred from geological evidence and assumed but not verified geologically 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."*

"An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed."

A 'Measured Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity."

The following elements from the JORC Code have been taken into account in the classification of the Mineral Resource areas:

- Pass for estimation;
- Number of samples used in the estimation;
- Anisotropic distance;

- Average distance; and
- Kriging variance.

The Mineral Resources for each area are described in the sections that follow and are based on the data composited within the solid. It is anticipated that once the solids have been reviewed to include more of the analysed data the reliability of the estimate will improve for each area.

3.9 Mineral Resource Statement

A summary of the estimated Mineral Resource with no cut-offs applied, for Mopani's Nkana and Mufulira operations, is shown in Table 12 and Table 13, respectively.

Table 12: Summary of Mineral Resources for Nkana Mine at 31st December 2010

Underground Project Areas	Structure	Measured				Indicated				Inferred				Total			
		Mt	%TCu	%ASCu	%TCo	Mt	%TCu	%ASCu	%TCo	Mt	%TCu	%ASCu	%TCo	Mt	%TCu	%ASCu	%TCo
Mindola North		1.70	1.75		0.13	2.50	2.27		0.13	0.50	1.78		0.14	4.60	2.03		0.13
Mindola		18.20	2.18		0.13	6.80	2.00		0.14	6.80	1.79		0.15	31.70	2.06		0.14
Central	Central and Central North	23.20	1.72		0.14	7.10	1.66		0.23	8.70	1.71		0.23	39.00	1.71		0.18
Synclinorium	Sob, Central and South Syncline	89.30	1.97		0.09	11.10	1.82		0.07	14.90	1.64		0.08	115.50	1.91		0.09
Central Upper Levels	ZJ - Limb					1.70	1.00		0.39	1.90	1.03		0.28	3.60	1.02		0.33
SOB Upper Levels	D - Anticline	1.30	1.21		0.12	3.60	1.65		0.08	1.60	1.57		0.06	6.50	1.54		0.08
	C - Syncline	0.30	1.67		0.04	0.60	1.66		0.05	0.50	1.29		0.04	1.50	1.54		0.04
F - Syncline	Below 1107m	2.50	1.81		0.07	0.80	1.58		0.06	0.40	1.53		0.05	3.70	1.73		0.07
	Nose Area (F Syncline above 1107m)	0.05	1.47	0.14	0.05	0.08	1.53	0.05	0.16	0.008	1.48	0.06	0.13	0.14	1.51	0.08	0.12
SUBTOTAL		**136.60**	**1.94**	**0.14**	**0.10**	**34.30**	**1.79**	**0.05**	**0.14**	**35.30**	**1.65**	**0.06**	**0.14**	**206.20**	**1.86**	**0.08**	**0.12**

Oxide Caps	Measured				Indicated				Inferred				Total			
	Mt	%TCu	%ASCu	%TCo	Mt	%TCu	%ASCu	%TCo	Mt	%TCu	%ASCu	%TCo	Mt	%TCu	%ASCu	%TCo
Area A	0.90	2.59	1.71	0.04	0.02	2.68	1.96	0.03	0.002	2.64	2.06	0.03	0.90	2.59	1.72	0.04
Area D	0.40	3.32	2.47	0.02									0.40	3.32	2.47	0.02
Area J	4.20	3.81	2.76	0.15	0.12	5.68	4.22	0.22	0.02	7.41	4.67	0.28	4.30	3.88	2.81	0.15
Area K	2.90	1.74	1.06	0.09	0.07	1.80	0.99	0.10	0.06	1.94	1.06	0.10	3.10	1.75	1.06	0.09
SUBTOTAL	**8.40**	**2.93**	**2.04**	**0.11**	**0.21**	**4.12**	**2.95**	**0.16**	**0.08**	**3.31**	**1.97**	**0.14**	**8.70**	**2.96**	**2.06**	**0.11**
Remnant/Pillars	**Structure**	**Measured**				**Indicated**				**Inferred**				**Total**			
		Mt	**%TCu**	**%ASCu**	**%TCo**	**Mt**	**%TCu**	**%ASCu**	**%TCo**	**Mt**	**%TCu**	**%ASCu**	**%TCo**	**Mt**	**%TCu**	**%ASCu**	**%TCo**
Mindola North	Pillar	0.80	2.09		0.11									0.80	2.09		0.11
SUBTOTAL		**0.80**	**2.09**		**0.11**									**0.80**	**2.09**		**0.11**
GRANDTOTAL		**145.80**	**2.00**	**0.25**	**0.10**	**34.50**	**1.80**	**0.07**	**0.14**	**35.4**	**1.65**	**0.06**	**0.14**	**215.70**	**1.91**	**0.16**	**0.12**

1) Mineral Resources have been reported in accordance with the classification criteria of the JORC Code.
2) Mineral Resources are quoted inclusive of Mineral Ore Reserves.
3) Mineral Resources are not Mineral Ore Reserves and do not have demonstrated economic viability.

Table 13: Summary of Mineral Resources for Mufulira at 31st December 2010

Project Area	Orebody	Measured			Indicated			Inferred			Total		
		Mt	%TCu	%ASCu	Mt	%TCu	%ASCu	Mt	%TCu	%ASCu	Mt	%TCu	%ASCu
Luansobe		4.50	1.65	0.78	0.60	1.29	0.66	0.40	1.22	0.76	5.60	1.58	0.76
Mufulira West	D	2.20	1.39	0.91	1.60	1.71	1.26	2.80	1.64	1.04	6.60	1.57	1.05
14 Shaft	B	0.30	2.02	-	0.20	1.88	-	0.30	1.90	-	0.80	1.94	-
	C	1.30	1.22	-	0.30	1.57	-	0.30	1.50	-	1.90	1.32	-
Mufulira Central	A	0.50	3.73	-	0.20	3.40	-	0.20	3.38	-	0.80	3.58	-
	B	2.50	2.56	-	1.00	2.45	-	9.50	2.54	-	13.00	2.54	-
	C	12.40	2.42	-	4.80	3.22	-	23.10	2.84	-	40.30	2.76	-
	C46_51	1.90	2.03	-	0.30	2.43	-	-	-	-	2.30	2.09	-
Mufulira East	B	0.20	2.47	1.43	0.03	1.69	0.80	0.40	1.75	0.93	0.60	1.96	1.07
	C	1.00	2.95	1.99	0.50	2.98	1.33	0.30	2.50	1.63	1.80	2.88	1.76
SUBTOTAL		**26.80**	**2.17**	**0.29**	**9.50**	**2.65**	**0.32**	**37.30**	**2.63**	**0.11**	**73.70**	**2.46**	**0.20**
Historical Blocks													
Remnant 47	C46_51	0.30	2.77	-	-	-	-	-	-	-	0.30	2.77	-
Remnant 50_51	C46_51	0.10	3.10	-	-	-	-	-	-	-	0.10	3.10	-
Safety Pillar	B	0.20	3.41	-	0.03	2.30	-	0.05	1.58	-	0.30	2.89	-
	C	0.30	2.31	-	0.05	2.19	-	0.07	2.15	-	0.40	2.27	-
	Middling	0.20	0.69	-	0.03	0.63	-	0.04	0.61	-	0.30	0.67	-
C orebody 480_660		0.20	2.27	-	0.20	187.00	-	0.20	2.23	-	0.60	2.11	-
SUBTOTAL		**1.30**	**2.37**	**-**	**0.30**	**1.86**	**-**	**0.37**	**2.19**	**-**	**2.00**	**2.21**	**-**
GRANDTOTAL		**28.20**	**2.18**	**0.29**	**9.90**	**2.62**	**0.31**	**37.6**	**2.62**	**0.11**	**75.70**	**2.46**	**0.20**

1) Mineral Resources have been reported in accordance with the classification criteria of the JORC Code.
2) Mineral Resources are quoted inclusive of Mineral Ore Reserves.
3) Mineral Resources are not Mineral Ore Reserves and do not have demonstrated economic viability.

3.10 Long term prospects

Both Nkana and Mufulira operations have good long term prospects. As part of the resource estimation, GAA evaluated the long term prospects for both operations.

The upside potential for the Nkana Mine is shown in Table 14. The majority of the upside potential extends from Synclinorium through to Central North regions as well as Mindola North and requires further drilling to upgrade the deposit to Mineral Resource. Medium term exploration plans to test this extension and is included in the relevant budgetary submissions. Provisionally projected expenditure is in the region of US 5 million over a 5 year period.

Table 14: Upside Potential for Nkana at 31st December 2010

Project Areas	Structure	Upside Potential			
		Mt	%TCu	%ASCu	%TCo
Mindola North	Mindola North (Single Orebody)	0.40	1.91		0.13
Mindola	Mindola (Single Orebody)	7.40	2.23		0.18
Central	Central and Central North	52.6	1.86		0.23
Synclinorium	Sob, Central and South Syncline	87.5	2.16		0.08
Central Upper Levels	ZJ - Limb	0.40	1.07		0.25
SOB Upper Levels	D - Anticline	1.00	1.61		0.07
	C - Syncline	0.20	1.67		0.04
F - Syncline	Below 1107m	0.60	1.72		0.06
	Nose Area (F Syncline above 1107m)	0.10	1.75	0.10	0.06
GRANDTOTAL		**150.10**	**2.05**	**0.10**	**0.14**

The upside potential for the Mufulira Mine is shown in Table 15. The Mufulira Central deposit is untested at depth, notably the C orebody, where the Inferred Mineral Resource is confidently projected some 300m below the existing ore reserve base. Longer term exploration plans to test this extension and is included in the relevant budgetary submissions. Provisionally projected expenditure is in the region of US 5 million over a 5 year period.

Table 15: Upside Potential for Mufulira at 31st December 2010

Project Area	Structure	Upside Potential		
		Mt	%TCu	%ASCu
Luansobe	Single Orebody	0.30	1.55	0.77
14 Shaft	B	3.30	1.98	-
	C	3.50	1.42	-
Mufulira Central	A	0.10	3.32	-
	B	10.40	2.55	-
	C	13.90	2.97	-
SUBTOTAL		**31.50**	**2.54**	**0.77**
Historical Blocks				
C orebody 480_660	Single Orebody	0.06	2.69	-
SUBTOTAL		**0.06**	**2.69**	**-**
GRANDTOTAL		**31.50**	**2.54**	**0.77**

3.11 References

Garlick, W.G. 1961 Geology of the Northern Rhodesian Copperbelt. In Chambishi, Mendelsohn, F (ed). Macdonald, London, pp 3 – 10.

4.0 DESCRIPTION OF RESERVES

Set out below are the reserve estimates for Nkana and Mufulira. It should be noted that the reserve estimates were completed in December 2010 and are the forecast reserves at 1 January 2011.

4.1 Nkana

The Nkana Mine site is situated in the Copperbelt Province of Zambia. The mine lies in the world famous Copper-Cobalt Metallogenic Province of Zambia-Democratic Republic of Congo ("DRC") Copperbelt. The Nkana ore bodies extend for a strike length of 16 km and lie along the Nkana north-westerly trending eastern limb of the Nkana Synclinorium and the Nkana-Chambeshi Basin. The Mine property lies some 400 km north of Lusaka, the capital city of Zambia and was visited by the mining team during October 2010.

The life of Mine ("LOM") plan and resulting reserve estimate for the open pit and underground operations were conducted by African Mining Consultants ("AMC"), based in the town of Kitwe in Zambia. This document is based on and contains various extracts from the AMC reports.

4.1.1 Mining methods

4.1.1.1 Underground Mining

Underground mining operations at Mopani Copper Mines Plc ("MCM") consist of four active operating underground mines. The underground mining operations are accessed by shafts namely:

- Central;
- Mindola Sub-vertical ("SV");
- South Ore Body ("SOB"); and
- Mindola North.

Underground mining operations started in 1931 with the oldest operating shaft being Central Shaft. Various mining methods are employed depending on existing ore body characteristics and ground conditions.

Vertical Crater Retreat ("VCR"), Sub-Level Caving ("SLC"), and Longitudinal Room and Pillar ("RAP") are among the underground mining methods employed at the various shafts. The relative tonnage contribution of each mining method in the LOM plan is 13%, 40% and 46% for RAP, VCR and SLC respectively. Average underground production for the last five years is 3.4 million tonnes per annum of ore at 1.94 %Cu and 0.12 %Co.

Mindola SV was opened in 1934. It has three shafts namely, Mindola No.1, Mindola No.2 and Sub-Vertical Shafts. The practical annual hoisting capacities are 1.3 million tonnes for Mindola No.1, 2.0 million tonnes for Mindola No.2 and 2.0 million tonnes for Sub-Vertical Shaft. The mining operations have extended to a depth of more than 1 500m. There are currently six active production areas. The annual production for the last five years is 1.1 million tonnes of ore on average.

Central was opened in 1931. It has three shafts namely, Central, B, and Sub-Vertical Shafts. The practical annual hoisting capacities are 1.4 million tonnes for Central Shaft, 0.9 million tonnes for Sub-Vertical and 0.3 million tonnes for B Shaft. The B Shaft is mainly used for waste hoisting. The mining operations have extended to over a kilometre down. There are currently five active production areas. The annual production average for the last five years is 0.5 million tonnes of ore at 1.62 %Cu and 0.13 %Co.

SOB Shaft was opened in 1952. The practical annual hoisting capacity is 1.7 million tonnes. The mining operations have extended to a depth of 1000m. There are currently six active production areas. The annual production average for the last five years is 1.2 million tonnes of ore.

4.1.1.2 Surface Mining

Four active open pits exist at Nkana; namely Mindola open pit ("MOP"), Area A, Area D and Area J.

MOP was first mined in 1965 to exploit the oxide caps above the Mindola North underground workings. The pit and underground openings are separated by a 25m vertical Crown Pillar. Due to the short remaining LOM, the remaining pit resources were not considered for conversion to Reserves.

Area A pit is an expansion of Mindola pit to the south. A geotechnical analysis of the area was done by Australian Mining Consultants ("AusMC") in 2007. AMC however recommended that the crown pillar could be reduced from 18m to 12m that implies the availability of a further 6m bench. Depletion of the pit is expected by June 2011 at a planned rate of 40 000 tonnes of ore and 120 000 tonnes of waste per month.

Area D is an oxide cap above the Mindola No.1 Shaft underground workings. The planned ultimate pit depth is 45m. The 18m crown pillar and all other pit design parameters are based on studies done by AusMC on Area A. From October 2010, competent rock has been reached that requires blasting activities. Due to the fact that Area D is located close to a road, dozers are used to rip the fresh rock. The scheduled production from this pit is 40 000 tonnes of ore and 220 000 tonnes of waste per month. Pit depletion is expected by February 2011.

Area J started stripping waste in 2010 and is now producing some low grade ore from the top benches. The Area J open pit is located close to SOB Shaft and is currently under geotechnical studies by AMC to assess the final pit limit, the influence of the nearby caving area and pit design parameters. The current design and schedule is based on the design parameters and modifying factors of Area A. The current design has a maximum depth of 74m subject to the outcome of the geotechnical investigations. Oxides below the planned pit bottom are planned for exploitation using underground methods with access from the pit.

4.1.2 Modifying Factors

4.1.2.1 Underground Mining

Geotechnical

Stope designs are based on recommendations by MCM geotechnical personnel and external consultants. Some of the consultants involved are SRK Consulting Engineers ("SRK"), AusMC, AMC and Itasca.

Economic

A historical cut-off grade of 1%TCu is applied in all underground mining areas and a true thickness cut-off of 10m% constraint used in thin ore bodies.

Mining Efficiencies

The recovery factors as defined and used at Nkana are defined and applied in three stages:

- Extraction: A factor used to account for the net losses of blasted ore due to the mining equipment and mining method inefficiency at the loading and hauling stage.
- Dilution: This factor accounts for the internal and external dilution and economic limits that are broken during blasting handled as ore.
- Recovery: A discount factor used to account for the loss of ore due to the selection of mining method and associated mine layout. The factor caters for the exclusion of planned irrecoverable pillars and other fringe or limit losses on the extremity of the planned mining operations.

Mining related modifying factors applied to the underground mining areas are tabled below. Averages from well monitored stopes were used for recoveries and dilution factors as opposed to the design parameters. Factors were applied globally level by level opposed to stope by stope.

Table 16: Nkana underground mining efficiencies

Mining operation	Structure	Mining method	Recovery	Dilution	Extraction
Synclinorium	SOB	SLC	95%	15%	100%
	Central	VCR	85%	15%	95%
	South syncline	SLOS	85%	5%	95%
SOB Upper levels	F - Syncline	SLOS	85%	20%	80%
	D - Anticline	SLC	95%	20%	90%
	C - Syncline	VCR	80%	15%	90%
Central	Central and Central North	SLC	95%	15%	100%
Mindola	Above 4370	VCR-DD	80%	11%	85%
	4440	SLC	82%	12%	93%
	Below 4440	VCR-UD	80%	15%	83%
Mindola North	Pillar	Room and pillar	54%	9%	70%

4.1.2.2 Surface Mining

Geotechnical

AusMC carried out a review in 2007 concerning the Area A open pit. The results of this report were used as a basis for the design of the Area D open pit and for some preliminary design work for Area J. The geotechnical parameters and resulting slope angles are tabulated below.

Table 17: Nkana geotechnical parameters

Material	Parameter	Unit	Hanging Wall	Footwall
Weathered Material	Berm	metres	3.0	3.0
	Batter Angle	degrees	65.0	65.0
	Batter Height	metres	6.0	6.0
Fresh Rock	Berm	metres	4.0	-
	Batter Angle	degrees	70.0	28-45
	Batter Height	metres	4.5	22.5
	Overall angle	degrees	50.4	45 maximum

Table 18: Nkana design pit slope angles

	Fresh	Weathered	Fresh	Weathered	Fresh	Weathered	Fresh
F/W	30	35	30	35	29	35	48
H/W	50	35	50	35	50	35	50

Mining efficiencies

The following modifying factors have been applied to the various open pit mining areas.

Table 19: Nkana open pit efficiency factors

Mining operation	Mining method	Recovery	Dilution	Extraction
Area A	Open pit	100%	5%	100%
Area D	Open pit	100%	5%	100%
Area J	Open pit	100%	5%	100%

Economic

A GEMCOM Whittle ("Whittle") pit optimisation was undertaken to determine the economic and optimal extent of the open pits. The parameters used in the optimisation process are tabulated below.

Table 20: Pit optimisation parameters

Parameter	Details	Unit	Area A	Area D	Area J
Recoveries	Dilution	%	10%	10%	10%
	Overall plant	%	85%	85%	85%
	Mining ore loss	%	5%	5%	5%
Capital	Plant	USD	-	-	-
	Infrastructure	USD	-	-	-
	Pre-stripping	USD	-	-	-
	Sustaining (USD 1,000,000)	USD	95,144	112,856	792,000
	Discount rate	%	12%	12%	12%
Limits	Mining (3,600,000 pa)	tpa	-	-	-
	Plant (870,000 pa)	tpa	-	-	-
Mining costs	**VARIABLE**				
	Drill, blast haul (contractor)	USD/t	3.94	3.94	3.94
	Haulage cost		2.56	1.53	1.63
			6.50	**5.47**	**5.57**
	FIXED/TIME COSTS				
	Supervision	USD/Ore	0.35	0.35	0.35
Processing costs	**ROM**				
	Crushing and milling	USD/t	5	5	5
	Leaching, SE/EW	USD/t (sold)	953	953	953
Realisation costs	Marketing, shipping & insurance	USD/t (sold)	330	330	330
	Applied to selling node	USD/t (sold)	**1,283**	**1,283**	**1,283**
Selling price (copper)	2011	USD/t	7,865	7,865	7,865
	2012	USD/t	7,613	7,613	7,613
	2013	USD/t	7,328	7,328	7,328
	2014	USD/t	7,036	7,036	7,036
	2015	USD/t	6,776	6,776	6,776

The result of the optimisation process is tabulated below.

Table 21: Pit optimisation results

Parameter	Value		
	Area A	Area D	Area J
Optimum Pit Shell	30	35	32
Ore tonnes	164,124	218,430	1.455Mt
Stripping Ratio	1.12:1	4.26:1	5.74:1
%ASCu (diluted)	0.83	2.23	1.96
Mine Life:	<1 year	<1 year	2.86 years

The pits were not redesigned to follow the optimum Whittle shells. AMC considered the current pit designs adequate for areas A and D, taking into account the crown pillars and existing nearby surface infrastructure such as roads and buildings. However, the pit design for Area J should be reviewed once the current geotechnical studies by AMC are concluded.

4.1.3 Mining schedule

The LOM production schedule were produced taking into account shaft production constraints and the implementation of the planned Synclinorium Shaft. The availability of multiple active production areas per shaft is commended and makes blending ores feasible.

A total of 2.9 million ROM tonnes were produced from the open pit and underground operations in 2009 at 1.85% Cu. The combined open pit and underground schedules deliver a ROM head grade of 1.83% Cu for a total of 108.1 million tonnes of ROM sulphide ore and a grade of 3.94% Cu for a total of 2.6 million tonnes of ROM oxide ore up to 2035. Production from the open pit operations is planned up to 2012. The peak production rate from underground operations is 5.1 million tonnes per annum from 2018 to 2026 on ore and 1.2 million tonnes per annum on waste in 2014.

The ROM production profiles for each operation at Nkana and a cumulative sulphide copper grade is shown in the figure below. Designs containing Measured Resource and Indicated Resource were included in the LOM schedule. The bulk of the LOM Plan tonnes are planned from Synclinorium Shaft.

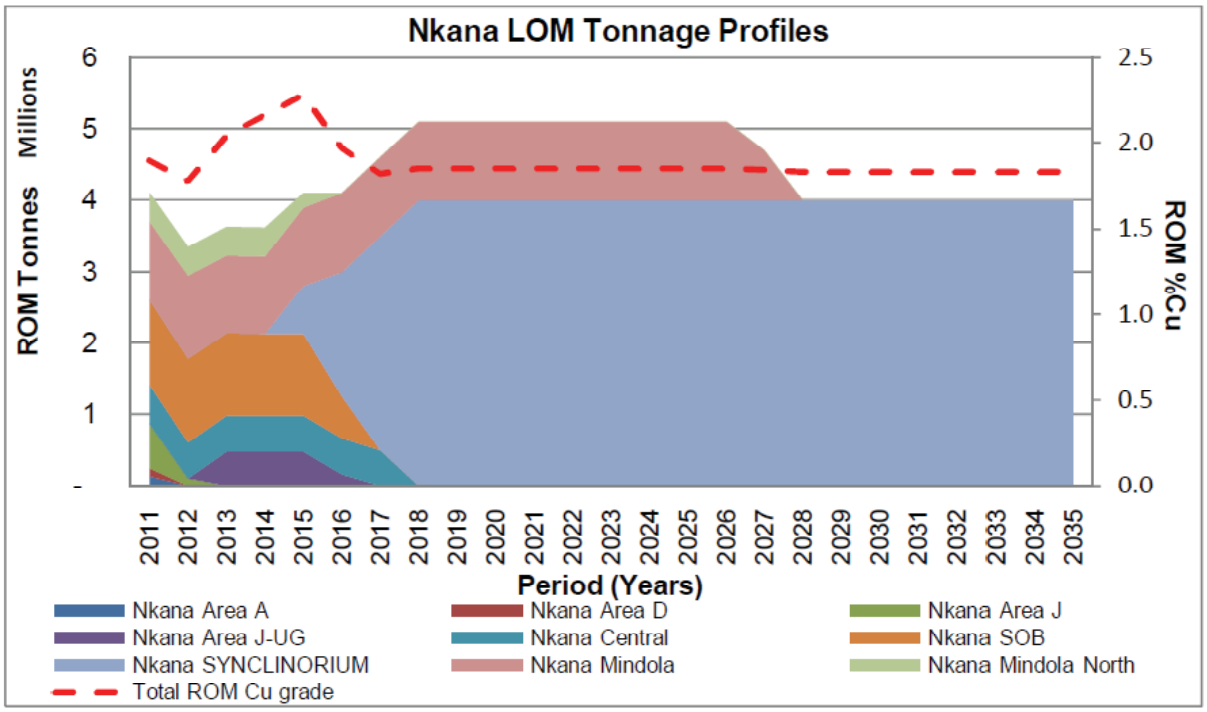


Figure 32: Nkana LOM schedule

The current sulphide plant feed capacity at Nkana is 4.3 million tonnes per annum with additional expenditures approved to ramp up the sulphide plant to 5.1 million tonnes per annum. The required LOM waste tonnage profile is shown in the figure below.

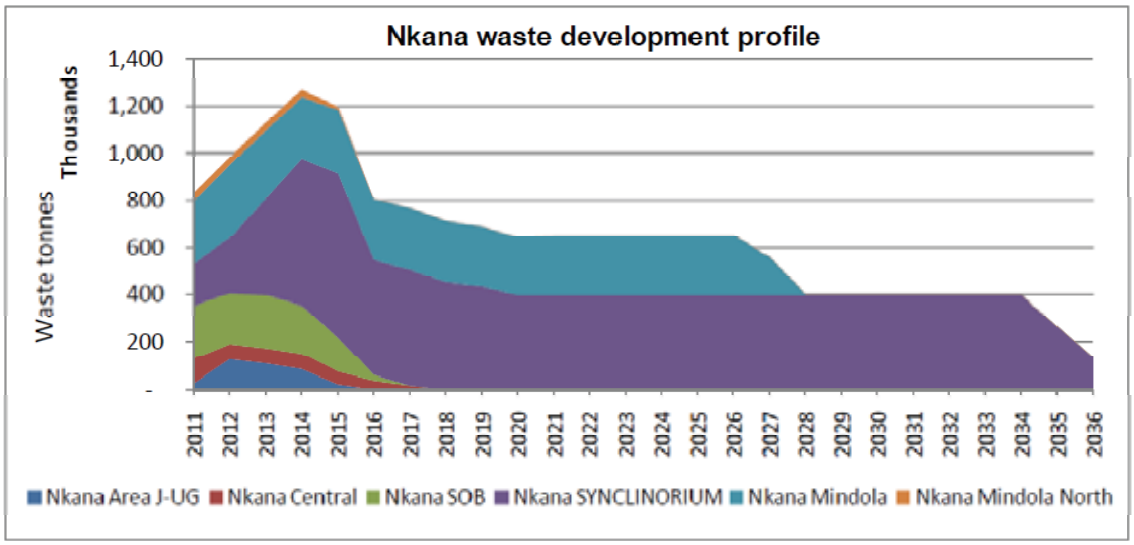


Figure 33: Nkana underground development schedule

Based on average recoveries of 88% for copper and 38% for cobalt, the resulting recovered copper profile is shown below.

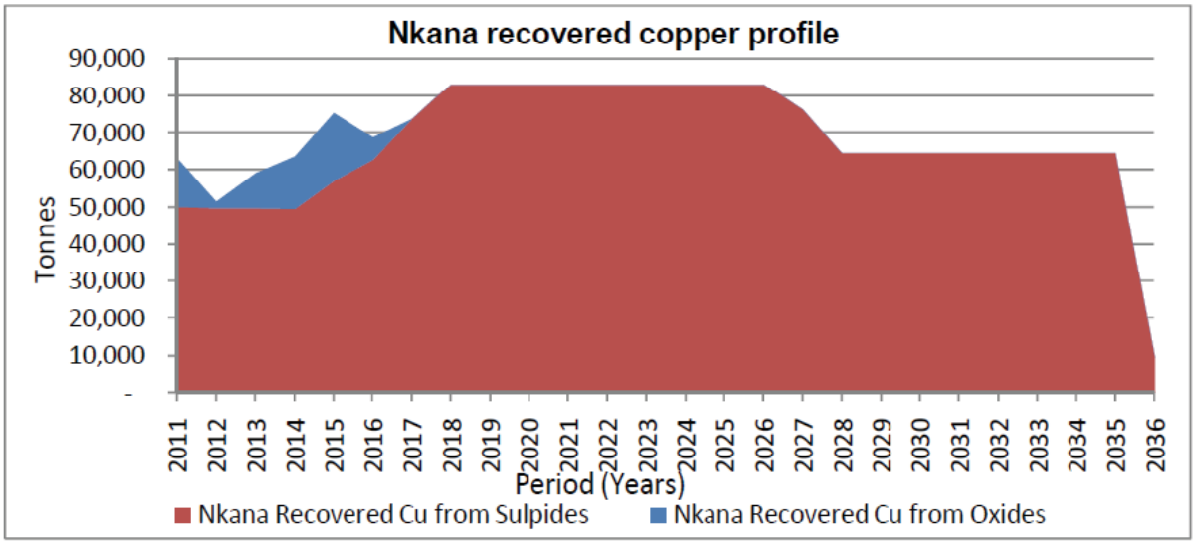


Figure 34: Nkana recovered copper profile

The recovered cobalt profile is indicated in the figure below. A maximum of 1 700 tonnes of recovered cobalt is achieved from 2018 to 2026.

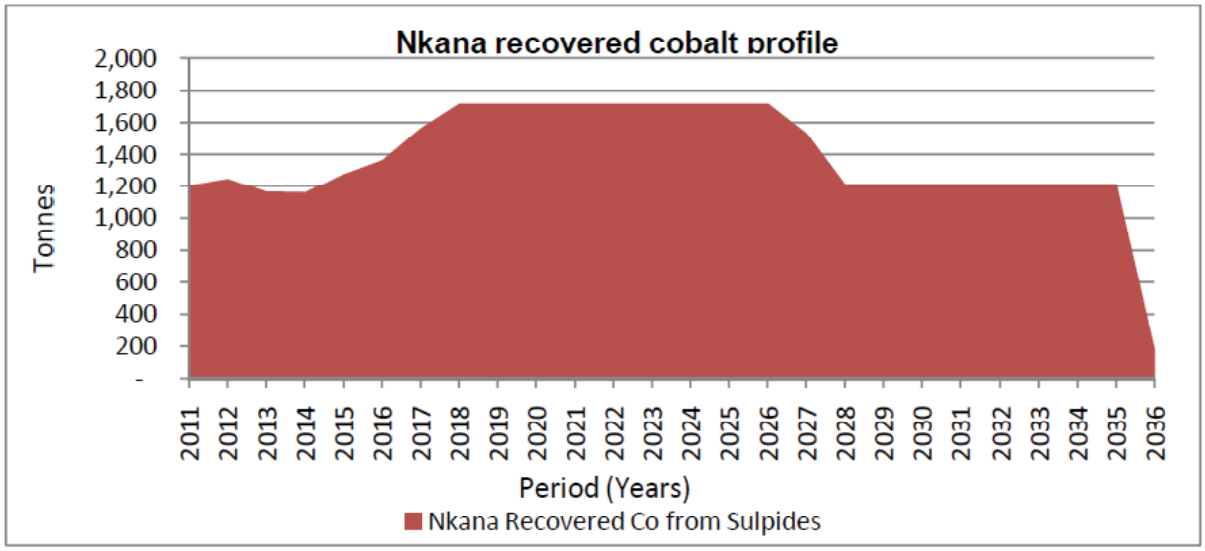


Figure 35: Nkana recovered cobalt profile

4.1.4 Reserve estimate

The mineral reserve is estimated at 110.7 million tonnes proved mineral reserves and probable mineral reserves. The Mineral Reserve consists of 108.1 million tonnes sulphide ore at 1.83% TCu and 2.5 million tonnes oxide ore at 2.85% ASCu. Resources were converted if a mining plan existed and the diluted grade is above 1% Cu. The reserve estimate is tabulated below.

Table 22: Nkana Reserve Estimate

Mining operation	Structure	Proved				Probable			
		Mt	% TCu	% ASCu	% TCo	Mt	% TCu	% ASCu	% TCo
Area A (Open pit)		0.10	1.40	0.69	0.04	-	-	-	-
Area D (Open pit)		0.10	2.91	2.30	0.03	-	-	-	-
Area J (Open pit)		-	-	-	-	0.70	2.54	1.91	0.09
Area J (Underground)		1.50	4.33	3.12	0.16	0.10	6.57	4.52	0.24
Synclinorium	SOB	41.70	1.71	-	0.08	4.20	1.85	-	0.07
	Central	15.00	1.86	-	0.09	1.10	1.85	-	0.07
	South syncline	13.20	2.25	-	0.07	2.70	1.88	-	0.06
SOB Upper levels	F - Syncline	2.10	1.51	-	0.06	0.70	1.32	-	0.05
	D - Anticline	0.50	1.44	-	0.06	1.50	1.48	-	0.05
	C - Syncline	0.30	1.43	-	0.04	0.40	1.43	-	0.04
Central	Central and Central North	4.80	1.65	-	0.12	-	-	-	-
Mindola		2.50	1.86	-	0.16	0.50	2.07	-	0.16
		1.00	1.72	-	0.14	0.30	1.88	-	0.18
		10.30	1.99	-	0.10	3.80	1.79	-	0.12
Mindola North		1.00	1.71	-	0.11	0.80	1.83	-	0.12
TOTAL		**94.10**	**1.88**	**2.89**	**0.10**	**16.6**	**1.83**	**2.21**	**0.22**

Table 23: Nkana Reserve Estimate Summary

	Proved Reserve				Probable Reserve			
Ore type	Mt	% TCu	% ASCu	% TCo	Mt	% TCu	% ASCu	% TCo
Oxide ore	1.80	4.02	2.89	0.14	0.80	2.84	2.10	0.10
Sulphide ore	92.30	1.84	-	0.10	15.90	1.80	-	0.23
TOTAL	**94.10**	**1.88**	**2.89**	**0.10**	**16.60**	**1.86**	**2.10**	**0.23**

4.1.5 Recommendations

- Area J underground is scheduled for 373 000 tonnes of ROM production in 2012. The Area J pit would be active until the second quarter of 2012 while underground development starts in the third quarter of 2011. This implies simultaneous development of the open pit and underground operations. Accessing the Area J underground ore body could be considered from existing underground workings. Detail studies must be undertaken to create an implementation design and schedule based up updated geological and geotechnical information. Various safety aspects have to be addressed and comprehensive risk assessments should be undertaken to define and mitigate the risks. Any delay in the underground development profile will have a negative impact on the ROM production profile.

- Area J open pit should be re-optimised and the pit redesigned once the geotechnical studies are concluded;
- Three dimensional stope and development designs and schedules should be created in General Mine Planning ("GMP") software. Reserves should be declared on a yearly basis based on the results of the GMP schedule. The current report is based on a general level by block basis. GMP designed stopes (in Surpac in this case) will add value to the existing long term and short term production scheduling.

4.2 Mufulira

Mufulira Mine site lies on the north eastern side of the Kafue Anticline at an elevation of about 1250m above sea level and 10km south of the border with the DRC. The deposit was discovered in 1923 with mine production initiated in 1933.

4.2.1 Mining Methods

The mining methods employed at Mufulira Mine are variants of Mechanised Continuous Retreat ("MCR") which is in essence a sub-level open stoping mining method. The variant mining methods are Mechanised Continuous Retreat 1 ("MCR1") and Mechanised Continuous Retreat 2 ("MCR2"), employed at Mufulira West and Mufulira Central. RAP mining is employed at Mufulira East.

Mining of the Mufulira ore bodies is divided into three areas, Mufulira East, Mufulira Central and Mufulira West. Mufulira Central is further sub divided into three areas, Upper, Central and Deeps based on elevation. The current mining methods used at Mufulira are variants of MCR. This mining method is essentially a sub-level open stoping method. The mining methods involve establishing longitudinal stope blocks across the strike of the ore body.

In the MCR1 mining method, drilling and extraction operations are conducted at each sub-level; with ore body cross cuts developed at 25m intervals along the length of the footwall drive. In the MCR2 mining method, the first sub-level is used as a drilling drive, with no ore extraction on this level. Every second level is used as an extraction level. Ore body cross cuts are developed every 50m on the drilling level and every 25m on the extraction level.

Currently the development drilling at Mufulira is done by both conventional and electro hydraulic rigs. The electro hydraulic rig fleet comprises of a variety of face rigs from major equipment suppliers such as Atlas Copco Ltd and Sandvik mining and construction Ltd. Blasted rock from the development ends is lashed using LHDs. The LHD fleet mainly comprises loaders with a bucket capacity of 4.6 cubic metres. However smaller loaders are also operated.

Production drilling is carried out using long hole electro hydraulic rigs in the mining drive. The holes are drilled in a fan pattern and are directed upwards. Generally the ring burden is 1.8m and the toe burden is 2.1m. The holes are drilled up to the bottom of the crown pillar. Stoping is initiated by creating a slot cut. This cut extends across the ore body width from the position of the slot raise. It is created by firing rings positioned in the cross cut using the slot as a breaking face. The slot cut creates a breaking face for the long hole blasting. Blast holes are charged using bulk emulsion explosives. The stoping direction is always in retreat. The developing of a slot at every 50m interval ensures that the mining echelon is maintained. Ore is extracted from the stopes via cross cuts using LHD's. Depending on proximity of the ore pass, the LHD's either hauling the ore to an ore pass or load into a truck.

4.2.2 Modifying factors

4.2.2.1 Geotechnical

The ore body is massive and generally fairly competent in all the areas with an average uniaxial compressive strength ("UCS") of 200MPa. In most cases, the ore body is moderately jointed with two major joint sets. The footwall of the ore body is characterised by very competent ground with an average UCS of 250MPa and fair to weak ground with an average UCS of 140MPa. The hanging

wall of the ore body is fairly competent with an average UCS of 180MPa. The geotechnical studies for the stope designs were done using the updated stability graph by MCM Rock Mechanics Engineers.

4.2.2.2 Economic

Historical cut-offs of 4m true thickness and 2% TCu are applied at Mufulira before applying mining related modifying factors. Internal blocks with grades less than 1% were included in the Reserves as internal stope dilutions.

4.2.2.3 Mining efficiencies

The mining efficiency factors at Mufulira are defined and applied in three stages.

- Extraction: The discount factor used to account for the loss of ore due to the selection of mining method and associated mine layout. The factor caters for the exclusion of planned irrecoverable pillars and other fringe or limit losses on the extremity of the planned mining operations;
- Dilution: The factor covers the internal and external dilution and material outside of the ore zone economic limits, that is broken during blasting and handled as ore during stoping;
- Recovery: A factor used to account for the net losses of blasted ore due to the mining equipment and mining method inefficiency at the loading and hauling stage.

Note: The mining efficiencies are historical terminology in use and defined by the mine and do not necessarily reflect industry accepted interpretations. These factors also have different interpretations at Mufulira and Nkana Mines. The combination of these efficiency factors however does reflect realistically assumed modification.

Since all the scheduled operational areas are active, the factors used were agreed upon between MCM and AMC and were based mostly on historical stope efficiencies. Mining related modifying factors applied to the underground mining areas are tabled below.

Table 24: Mufulira mining efficiencies

Project Area	Ore body	Mining method	Recovery	Dilution	Extraction
Mufulira West	D	MCR2	83%	18%	92%
Mufulira Central	A	MCR1	83%	35%	82%
	B	MCR1	83%	13%	82%
	C	MCR2	83%	30%	92%
Mufulira East	C	R&P	83%	19%	94%

4.2.3 Mining schedule

A total of 1.6 million ROM tonnes were produced from the underground operations in 2009 at 2.0% Cu. The underground schedule delivers a ROM head grade of 2.7% Cu for a total of 12.3 million tonnes of ROM ore, up to the year 2022. The bulk of the LOM production tonnes are produced from Mufulira Central Deeps at 1.0 million ROM tonnes per annum from 2015 to 2022. The peak waste production from Mufulira Central Deeps is 0.3 Mt in 2015.

The ROM production profiles for each operation at Mufulira and a cumulative copper head grade is shown in the figure below. Some Inferred Mineral Resources were included in the LOM schedule for Mufulira Central Deeps. The bulk of the LOM tonnes are planned from Mufulira Central Deeps.

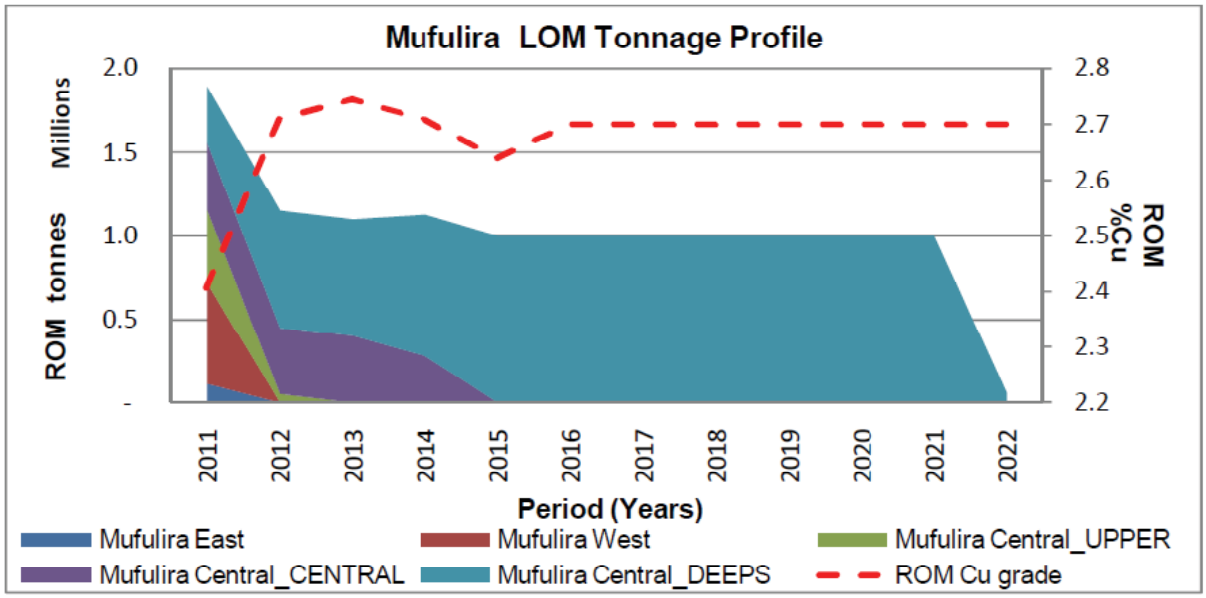


Figure 36: Mufulira LOM Tonnage Profile

The ROM head grade of 2.7% Cu is achieved in 2013 and is maintained on average for the LOM. The current plant feed capacity for the Mufulira is 2.95 million tonnes. It is evident from the LOM profile that less than 50% of the plant feed capacity is achieved. The LOM waste tonnage profiles are indicated in Figure 37.

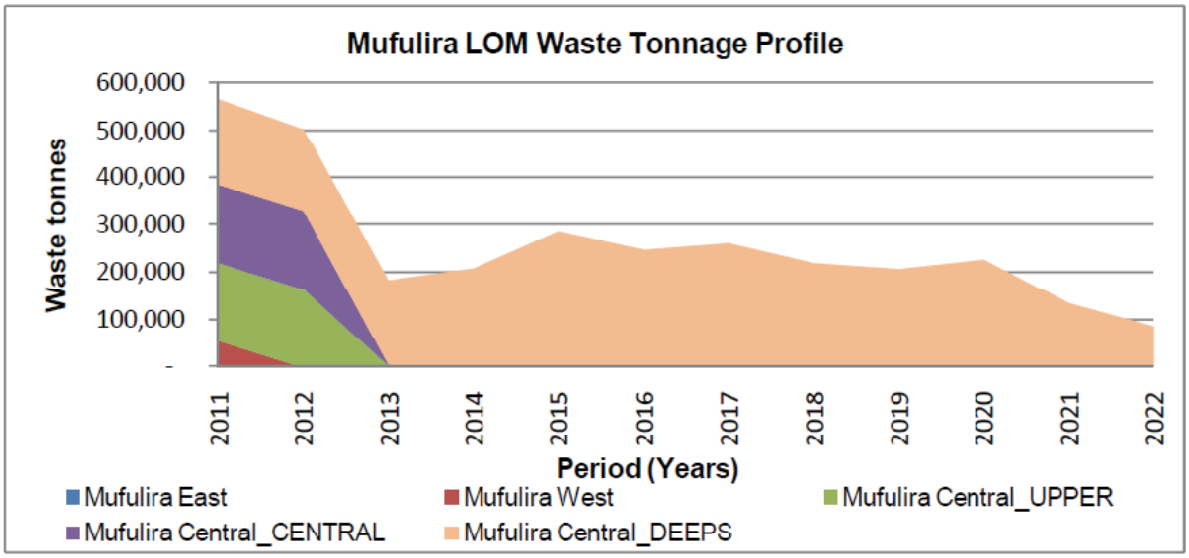


Figure 37: Mufulira waste development profile

Based on average recoveries of 90% for copper, the resulting recovered copper profile is shown below.

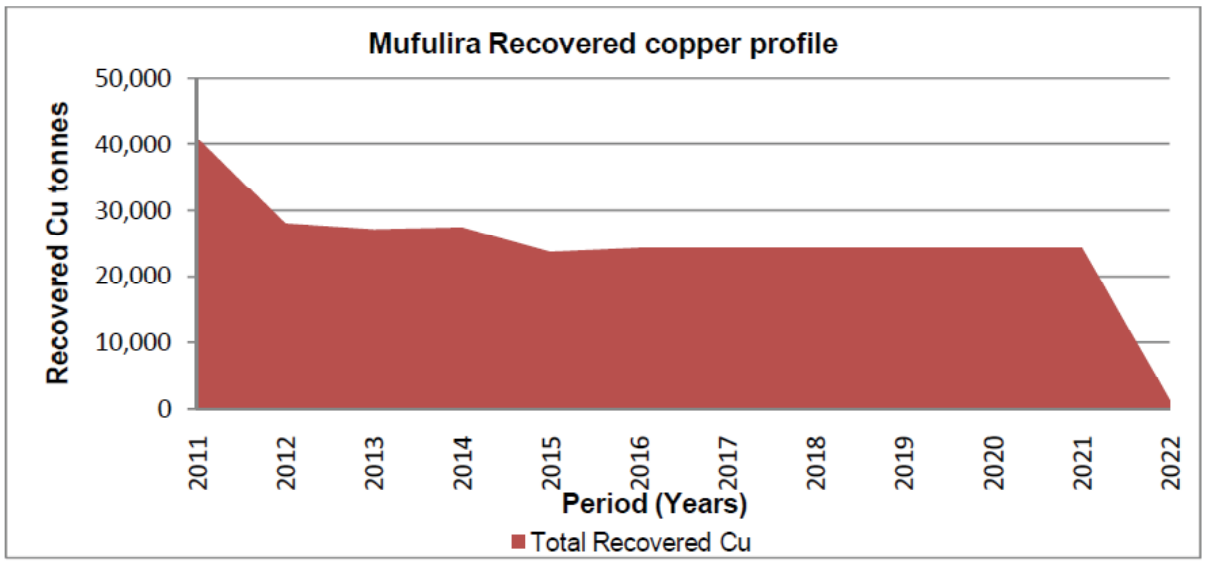


Figure 38: Mufulira recovered copper profile

4.2.4 Mineral Reserve

Mineral reserves were estimated by AMC for MCM-Mufulira Mine as at 31st December 2010. The conversion of the mineral resource estimate into a mineral reserve was based on practical mining methods current efficiency factors and mining related modifying factors. Due to the practical mining layout, 1.7 million tonnes at 2.86%TCu of Inferred Mineral Resources have been included in the LOM plan.

The Mineral Reserve is estimated at 10.6 million tonnes proved mineral reserves and probable reserves at 2.6% Cu and 1.0% ASCu. The reserve table is shown below.

Table 25: Mufulira Mineral Reserve Estimate

Project Area	Ore body	Mining method	Proved			Probable		
			Mt	% TCu	% ASCu	Mt	% TCu	% ASCu
Mufulira West	D	MCR2	0.60	1.17	0.77	-	-	-
Mufulira Central	A	MCR1	0.40	2.83	-	0.20	2.84	-
	B	MCR1	1.20	2.72	-	0.30	2.86	-
	C	MCR2	5.70	2.57	-	2.00	2.99	-
Mufulira East	C	R&P	0.10	3.01	2.03	-	-	-
Total			**8.10**	**2.51**	**0.96**	**2.50**	**2.96**	-

4.2.5 Recommendations

- Three dimensional stope and development designs and schedules should be created in GMP software. Reserves should be declared on a yearly basis based on the results of the GMP schedule. The current report is based on a general level by block basis. GMP designed stopes (in Surpac in this case) will add value to the existing long term and short term production scheduling.
- Sources of dilution should be investigated as the current factors are relatively high.

5.0 PLANT AND EQUIPMENT

5.1 Mopani Mines General Process Commentary

The assets of Mopani Copper Mines reside at the Nkana and Mufulira sites. These are located approximately 50km apart geographically.

For the overall Mineral Experts Report ("MER") it would be sufficient to state that operational processing facilities exist at both sites and that they are more than capable of treating the material arising from the current mining operations at acceptable levels of plant availability and mineral recovery from both the Nkana and Mufulira sites. However, each site was visited and a detailed report generated for each processing installation which follows this preliminary opening narrative.

Mopani Copper Mines is located in the country of Zambia with Nkana located adjacent to the town of Kitwe and Mufulira some 50km to the north east.

Nkana has a mine and processing plant and produces a sulphide rich concentrate which is transported to Mufulira for further treatment. It should be noted that Nkana is reliant upon the facilities at Mufulira to realise copper metal production from its sulphide circuits.

In addition it also produces electro-won cathode copper as final product from its acid soluble oxide ore treatment plant.

At the Mufulira site there is a mine, processing plant along with all of the pyrometallurgical processes of smelters, converters and equipment to produce copper anodes for the electro refining process; here the final copper product is achieved by plating the copper to produce a pure copper cathode with a four nines 99.99% Cu priority.

At Nkana the installed process plant capacity is 4.3 million tonnes per annum ("tpa") while the current throughput is in the region of 3.3 million tpa, at Mufulira the installed capacity is 2.95 million tpa compared to the actual throughput being 1.5 million tpa; the important point to note is that the process plant is neither restricting throughput nor copper production.

All copper and cobalt product is shipped out in sealed containers and is exported via the port of Durban in South Africa; it was explained to us during the site visit that this route has been selected for security reasons and to reduce the possibility of theft.

Both sites, Nkana and Mufulira, were originally built and commissioned in the 1930's and both operations have been operated continuously since then. Where necessary capacity has been increased and capability modified as equipment wore out or became obsolete, technology improved or new markets were realised; an example being the cobalt circuit which was added at Nkana after it became a commodity of "interest" and when it became an economically viable product to produce. It is also significant to note that despite their relative ages both installations are still achieving metal recoveries for copper in the high eighties and appear to be well maintained. It is also pertinent to indicate that at the time of our visit there was a visibly good standard of housekeeping around both sites.

At Nkana the cobalt floats with the copper and then has to be separated out by a differential float using lime to alter the pH and sodium cyanide; this is not an exact process and as a result some of the copper remains within the cobalt stream which is recycled in the process and recovered later.

From 2000 onwards both sites introduced solvent extraction ("SX") technology with the incorporation of mixer settlers and these enable a more precise split between the copper and cobalt to be obtained and as a result the copper and the cobalt can be plated out as metal in their relevant electro winning ("EW") sections at Nkana while at Mufulira SX enables the oxide soluble copper to be recovered.

Both sites feature additional processing capability, at Nkana there is an oxide plant which recovers the acid soluble copper via leach, counter current decantation ("CCD") and SX while at Mufulira

there is an underground leach of the oxide type ores also to recover the acid soluble copper via SX while the sulphide copper ore is mined and sent to the process plant for recovery through the main processing circuit, smelter and electro-refining sections.

Ideally and if the ore body were to be discovered in current times a significantly different plant footprint would be seen, however both Nkana and Mufulira have the process plants that they have and are making the best of the situation.

As indicated earlier at Nkana the flotation circuit has been upgraded by the addition to the flotation circuit of both tank cells and column cells with the existing cells being retained and still utilised just in a different duty, while at Mufulira the process plant has seen an upgrade to the milling section with the addition of the new “Vecor” mills.

It would seem unlikely that at this stage in the life of both mines that large scale replacement of the process plant equipment would be carried out but that is to some extent determined by the geology and the size of the deposit that remains as recoverable.

In summary both the Nkana and Mufulira sites have sufficient processing capability to treat all of the material produced by the mining operations and in addition both sites are achieving acceptable levels of metal recovery.

5.1.1 Valuation of the Plant

It is difficult to place a value on the process plant at the Nkana and Mufulira sites as they have been in place for some 80 years and modified and added to with the passage of time.

If the process plants were to be built today, they would be a much more streamlined and modern process with a smaller footprint. Undoubtedly the plant has long been paid back from the operating revenue and certainly cannot owe money at either site. A sensible option would be to cost a replacement and discount the value.

In reality the value of the plant lies in its ability to treat all of the material coming from either above the ground open pit operations and the underground operations.

The value of the plant and equipment has been taken into account in the economic valuation set out in Section 12.0.

5.2 Nkana

5.2.1 Introduction

A plant site visit to the Mopani Copper Mines, Nkana the “concentrator” was undertaken on 16 October 2010.The main feed to the concentrator plant is copper/cobalt ore from underground with occasional supplementary feed ore from the open pit.

The open pit material is predominantly oxide type material while the feed from underground is mainly sulphide in nature this will dictate the type of plant to be built in order to treat the ore. It should be noted, at this point, that operations commenced at the Nkana site in the early 1930s’ and have carried on continuously since then and, while the plant may not be what would be constructed if the ore body were to be discovered today, the process plant still satisfies the requirements as it treats all of the material fed to it with capacity to spare and does this at an adequate level of recovery efficiency of copper and cobalt and plant availability.

It should also be borne in mind that in the 1930s’ there was no identified use for cobalt and, as such, this is a comparatively recent addition to the flow sheet.

At the time of the site visit, all of the equipment was in a useable condition and it was clear from our walk round the plant that there is a high degree of emphasis on housekeeping as spillage and general rubbish was minimal and things were generally tidy. In addition, we were informed that the

plant is closed on a regular basis during morning shift in order to perform routine planned maintenance.

5.2.2 The Process Plant

5.2.2.1 Ore Reception and Crushing

Ore is received from underground from the Mindola, SOB and Central Shafts. Mindola and SOB are outside the plant area and ore is railed across to the concentrator while ore from Central is delivered into the ore reception bin. The mined ore is initially passed through a primary crusher underground before transport to the surface except ore from Central Shaft which is passed through a dedicated primary crusher in the concentrator. The plant was off line at the time of our visit so it was not possible to verify the actual material size.

Material is transported by conveyor into a bin prior to being fed into the secondary crushers which are 7 foot Standard Symons cone crushers with a gap setting of average 30 mm; these discharge onto a screen with the undersize passing to the mill feed bin and the screen oversize passing into the 7 foot short head crushers which are set at an average 18 mm gap and are in closed circuit with a sizing screen the oversize is recycled back into the crushers and the undersize joins the undersize in the mill bins.

5.2.2.2 Milling

Figure 39: Mill Building at Nkana

Milling units comprise of a rod mill working with a ball mill, feed from the bin goes into the rod mill and the discharge passes to a cyclone where the overflow reports to the flotation circuit while the cyclone undersize reports to the ball mill feed, the ball mill discharges into the same rod mill discharge sump which again pumps up to the cyclone, this ensures that only correctly sized material passes to the flotation section. The mine source rods, balls and liners locally.

5.2.2.3 Flotation

Cyclone overflow from the milling section is fed into four “tank cells” where xanthate and frother are added. The tank cell tailings pass into the old flotation section of the plant where they undergo further flotation in Wemco type float cells; these cells are divided in duty in that the first few cells send their concentrate with the tank cell concentrate while the latter cell concentrates report back into a middlings stream which reports back to the mill sump.

The Wemco cell tailings pass as final process plant tailings via the tailings thickener.

The combined tank cell and Wemco concentrates pass to the Primary column cells for a cleaner float with the Primary column tailings passing to a Secondary column for further flotation where the concentrate is combined with the primary column concentrate and moves into the next step of the process and the secondary column tailings is recycled back to the mill sump.

5.2.2.4 Splitting Copper and Cobalt

Under the flotation conditions in the process a concentrate has been produced that contains both the copper and the cobalt. It is now necessary to split the two into discrete streams; this is achieved by raising the pH to 12 with the addition of lime and adding sodium cyanide a copper rich concentrate can be floated off in a dedicated column cell leaving the majority of the cobalt behind. However, this is not an exact separation and the aim is to achieve a copper only concentrate leaving behind some of the copper in the cobalt stream. There is additional flotation capacity which is used in rougher, cleaner and scavenger duties with the concentrate being added to the copper concentrate. The copper concentrate is on average 30% Cu and 0.4% Co while the cobalt stream is on average 10% Cu and 1.8% Co.

The copper concentrate produced is thickened in a concentrate thickener and then through a disc ceramic filter to produce a filter cake which is passed into the storage shed prior to being trucked to the pyrometallurgical plant at Mufulira for the recovery of the copper into metal.

A portion of the cobalt stream is pumped to the Cobalt Plant for recovery of the cobalt while the remainder passes into the rotary drum filter plant to produce a filter cake which is also transported to Cobalt Plant to extract copper and cobalt. The Nkana process plant did originally have its own dedicated smelter but when the mines were up for sale Mopani did not purchase the pyrometallurgical complex and now relies upon Mufulira to realize the bulk of its revenue stream.

The cobalt concentrate is treated through a Roast-Leach-SX/EW route. A new roaster was installed replacing the obsolete one in 2006.

Figure 40: Old and New Roaster at Nkana Cobalt Plant

5.2.2.5 Other Processing Capability

In addition and comparatively recently in the 80 year life of the Nkana facility a copper oxide recovery plant has been added and this follows the more modern and conventional approach to the recovery of copper, albeit on a smaller scale than the sulphide plant that is milling, leaching, CCD circuit, SX/EW to give a copper product. This facility treats oxide ore from the open pits and uses milling and leaching to remove the metals into solution.

New standard crushers have been installed in the circuit to improve the crushed ore size to 25 mm for efficient feed to the SAG mill (Ref Figure 41)

Figure 41: New Standard Crusher in Nkana Leach Plant

Figure 42: "Oxide" Plant Mill Installation

This is then followed by a counter current decantation ("CCD") section.

Figure 43: The Oxide Plant CCD Circuit

This produces a relatively clear solution which then passes to the solvent extraction ("SX") CCD's further enhance recovery of copper from leached solids into solution.

Figure 44: Solvent Extraction (SX) Building

Here, in the solvent extraction process, is where the metal in solution is taken into an organic phase and then, in a second reaction back into spent electrolyte which is now in a form that the metal can now be plated out in the electro winning ("EW") section.

5.2.3 Electrowinning

Nkana has both copper and a cobalt tank houses in which each of the metals is electroplated out of solution onto stainless steel cathode plates.

The tank houses are the final process for Nkana oxide leach/SX and copper cobalt Roast-Leach-SX plants where metal product is obtained, the EW process effectively acts as a cell passing the current through the cell from the lead anode to the stainless steel cathode plates through the loaded solution and the positively charged metal particles are plated in the form of copper metal onto the cathode plates.

Figure 45: Nkana Copper Tank House

The tank houses contain the final process in the concentrator; this is where metal product is obtained, the EW process effectively acts as a cell passing the current through the cell from the anode to the cathode through the loaded solution and the positively charged metal particles (anions) are plated in the form of copper metal onto the cathode.

5.2.3.1 Copper

For copper the electrodes when they have reached a sufficient thickness are stripped off of the stainless steel cathodes in the stripping machine, strapped together in bundles of 40 copper plates and weighed prior to export.

5.2.3.2 Cobalt

With regard to cobalt the EW process plates out the metal onto stainless steel cathodes in a similar manner to copper EW. The stripped cobalt metal plates are crushed into metal chips. The crushed pieces are placed in a degassing furnace and heated to temperature of 800 degrees Celsius to diffuse out hydrogen from the metal matrix. The metal is then tumbled in a mill to restore the “shine”

to the metal flakes these are then drummed and shipped out. The cobalt metal produced is at least 99.65% purity and its band are listed with the LME.

5.2.4 Copper Cobalt Metal Transportation

The copper cathodes in bundles are loaded in containers/rail wagons and transported via Dar-Es Salaam (Tanzania)/Durban (South Africa). The drummed cobalt product are packed into containers and trucked out to leave the continent via Durban in South Africa. For cobalt this method is preferred to the more direct route via Dar es Salaam as it poses a much lower security risk.

5.2.5 Maintenance

As indicated maintenance is carried out on a regular basis and is programmed to take place on the morning shift which means that everyone is available should they be required. It is important to note that Mopani have realised the overall benefit to the operation to maintaining a planned maintenance schedule and it is to their credit that the equipment is still running.

5.2.6 Risk

It is pertinent to highlight the risks that could impact significantly upon the Mopani operations and they are as follows:

- an extended power failure, the Nkana plant does not have a significant emergency power generation capability and should the power fail for an extended period without prior notification the consequences will be severe;
- a water in rush in the mine will obviously stop the ore extraction process; and
- a significant reduction in the copper price, will clearly affect the profitability of the process.

5.2.7 Flow Sheets and Aerial Photography

The following block flow diagrams show the actual process step in the Nkana plant and the aerial photographs attempt to give an overall feel of the size of the Nkana installation to the reader.

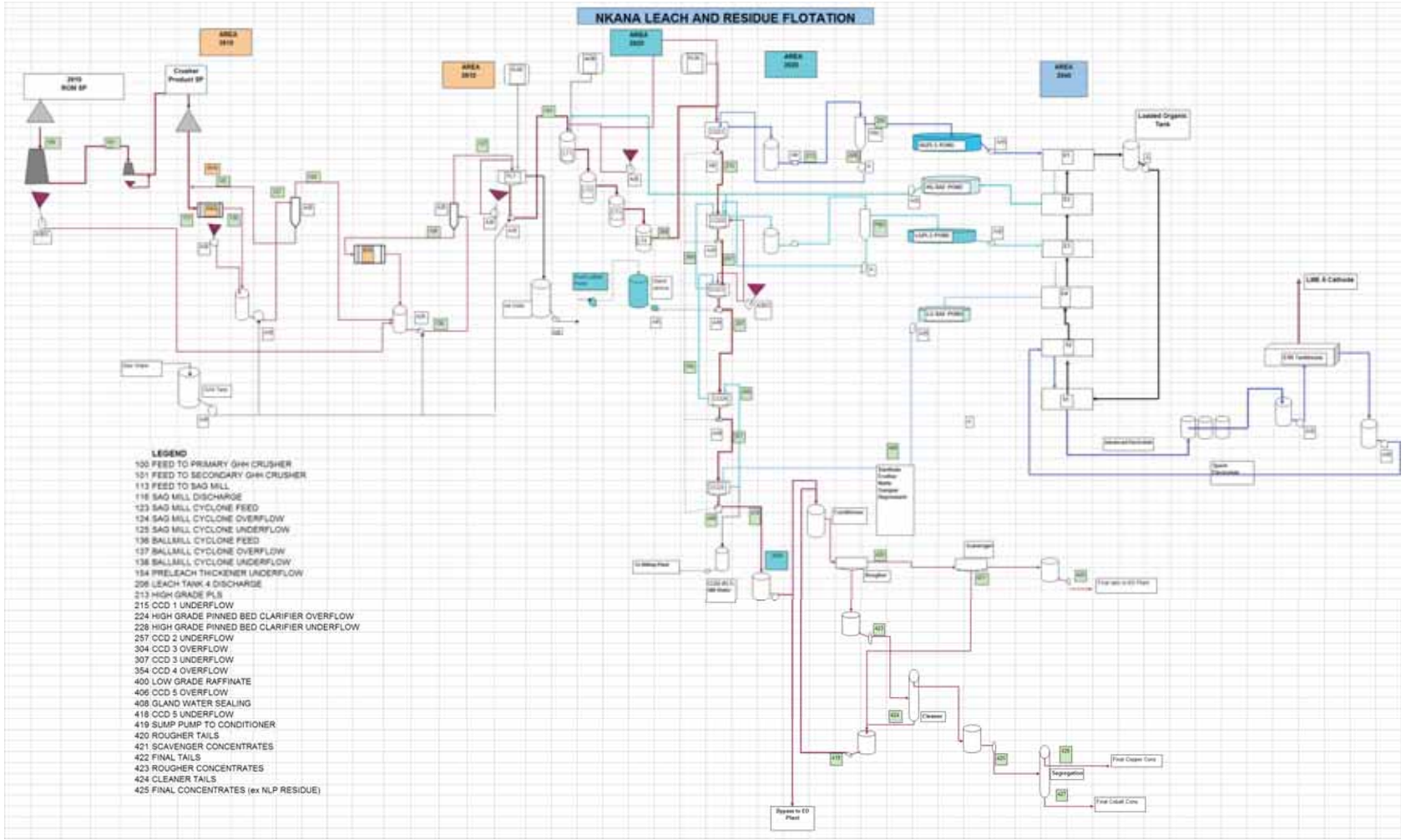


Figure 46: Nkana Leach and Residue Flotation

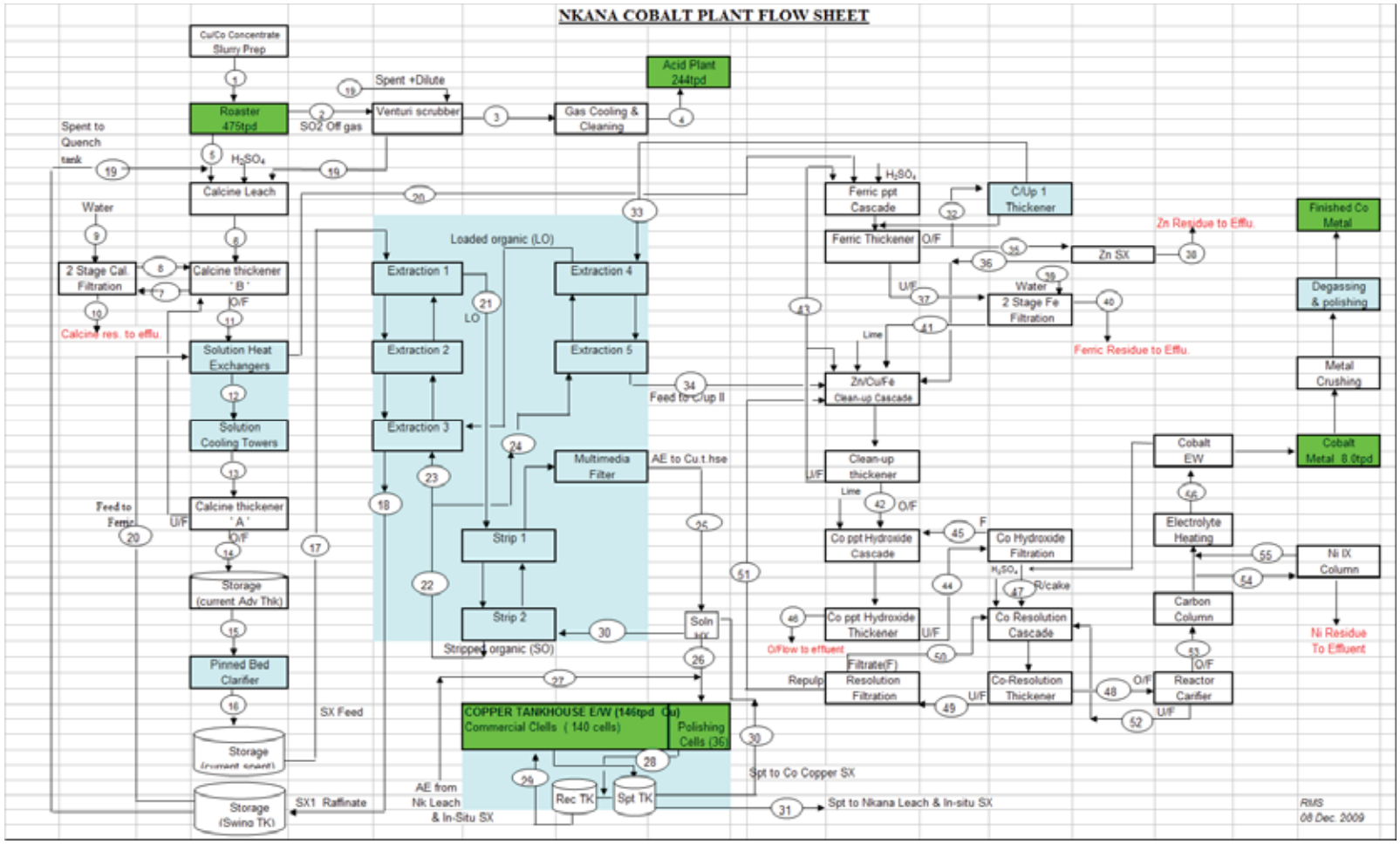


Figure 47: Nkana Plant Cobalt Recovery Flow Sheet

5.2.8 Summary

The Nkana installation is old and that technology has moved on sufficiently such that a plant like this would not be built today.

However, it has been modified with the inclusion of new equipment i.e. the flotation tank and column cells that will bring copper recoveries up to that of a more modern facility, refer to the following table.

Comparing Nkana against other sites recovering the same materials within a 100km radius it is in a far better condition, is cleaner and, it appears that there is far more emphasis on housekeeping by Nkana management and staff. The plant is old but it is currently satisfying operational requirements. With the introduction of the oxide leach plant it is securing its future from a processing perspective.

5.3 Mufulira

5.3.1 Introduction

A site visit to view the Mopani Copper Mines facilities at Mufulira was undertaken on the 17th of October 2010. Our host for the visit was Narain Goyal the Chief Processing Officer at Mufulira.

The SNC/GAA group split up in order to allow the geologist and mining engineer time to visit the open pit operations while the remainder of our group took part in a visit around the processing and smelting facilities.

Like Nkana, Mufulira has been an operating facility since the 1930's; opening slightly after the Nkana operation began and has been in use continuously since then. Although the Mufulira operation has a lower rated throughput than Nkana, Mufulira is an important part of the Mopani operations as it not only has its own mineral processing and concentration plant but importantly has the pyrometallurgical smelting, converting and casting facilities along with the electro refining capability that Nkana lacks to convert its concentrate obtained from its sulphide ore processing facility into final metal product.

The big difference is that Mufulira has very low levels of cobalt and as a result does not have a cobalt circuit

While the processing plant at Mufulira is old it has been subjected to several upgrades and modifications as either equipment became worn out and was replaced by newer equipment or as processes generally improved and these improvements were added to the flow sheet during its lifetime, examples of this are the Vecor mills and the column cells along with the underground and surface heap leach plants to recover the acid soluble copper.

5.3.2 Process Description

The following narrative attempts to describe the flow of material around the processing circuit and the accompanying photographs show the equipment items and general condition.

5.3.3 Ore Reception and Crushing

Crushed ore is received from 5, 7 and 14 Shafts and is transported by conveyor from the underground skip and is discharged into the secondary and tertiary crushing circuits with the tertiary crushers being in closed circuit to ensure that no oversize passes downstream into the milling circuit.

Two SHD Hydrocone crushers were installed in 2004 and one in 2005. Also one STD crusher was installed in 2005 and another one 2006 in the crushing section to replace obsolete secondary and tertiary crushers. (Ref Figure 48)

Figure 48: New SHD Hydrocone Crusher

Figure 49: Secondary and Tertiary Crusher Building

5.3.4 Milling

Material is drawn from the fine ore bin and is fed into each of the eight “Hardinge” ball mills and the two “Vecor” mills according to the requirements. The fine ore bin holds approximately a 12 to 15 hours buffer capacity of mill feed, depending upon the number of mills running at the time.

With all eight Hardinge mills working along with one Vecor mill running and an availability of 95% daily mill capacity is 6 749 tonnes or 281 t/h. This is equivalent to the downstream plant capacity.

Figure 50: Mill Feed Bin

The original installation was the twenty eight Hardinge Mills, with a throughput of 27 t/h each and the Vector Mills installed later as a maintenance cost reduction measure. Each Vecor Mill replaced three Hardinge Mills in terms of capacity. These were installed with the rated capacity of 80 t/h each but later optimised to 90 t/h each. These are located 90º to the Hardinge installation at either side of the Milling building.

There is also regrind milling capacity available but this was not running at the time of our visit with one of the mills having its liners removed awaiting relining and the second being charged with balls; it is presumed that the mills will be returned to service once the work has been completed.

Flotation Plant

Milled ore passes into the flotation circuit where it undergoes a series of rougher and cleaner floats, the result is a final tail and a concentrate along with various streams recycled internally to be returned to the regrind circuit and further flotation to help increase the recoveries. Cleaner flotation is performed in the column cells.

The column flotation concentrate passes into the concentrate thickeners with the thickener underflow reporting to the disc filters which then produce a filter cake with a moisture content of ±10%. The filter cake is then discharged onto a conveyor where it passes to a storage area to await treatment in the pyrometallurgical section.

Figure 51: Rougher and Cleaner Flotation (Photograph 1)

Figure 52: Concentrate Thickener

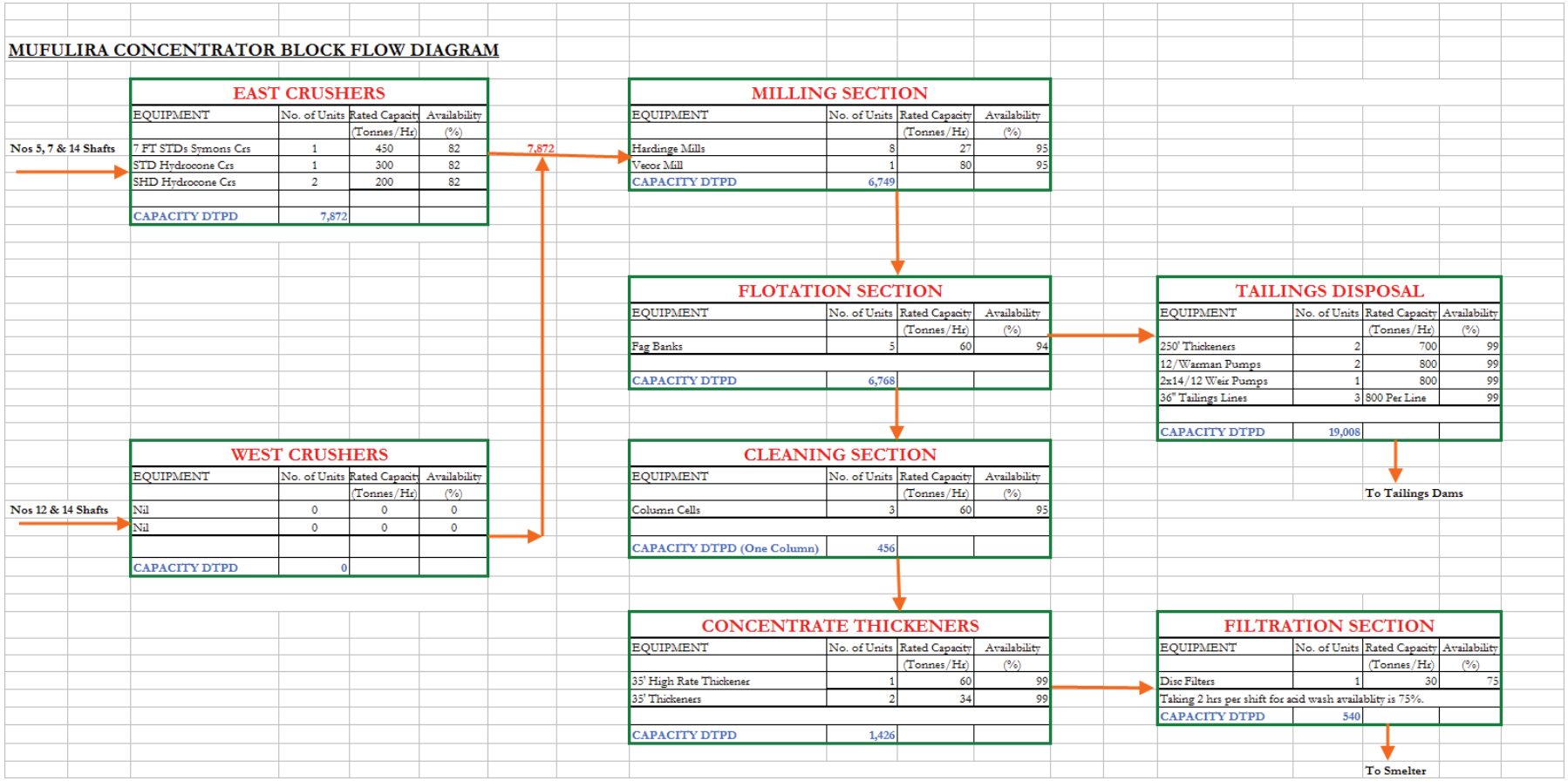


Figure 53: Mufulira concentrator Flow Diagram

5.3.5 Pyrometallurgical Section

This is an important processing operation as it treats both Nkana and Mufulira sulphide.

5.3.5.1 Smelting, Converters and Anode Casting

The initial metal production is via the Isa Smelt furnace. Here the concentrate is blended with flux and reductant in the form of coal and fed into the Isa Smelt furnace. A mixture of matte and slag is tapped from time to time into Matte Settling Electric Furnace ("MSEF") for separation.

ISA smelt furnace uses reaction heat to effect smelting and electricity provides the heat source in MSEF. The SO_2 is captured and used in the acid plant to make sulphuric acid (H_2SO_4).

Products from the MSEF are matte and slag. 'Matte' is tapped into a ladle and is transported to the converters using the main aisle overhead cranes. Slag is skimmed and granulated with high pressure water jet. The granulated slag is recovered by mechanical grab and fed into a bin. The slag is disposed off to the slag dump using the dump trucks.

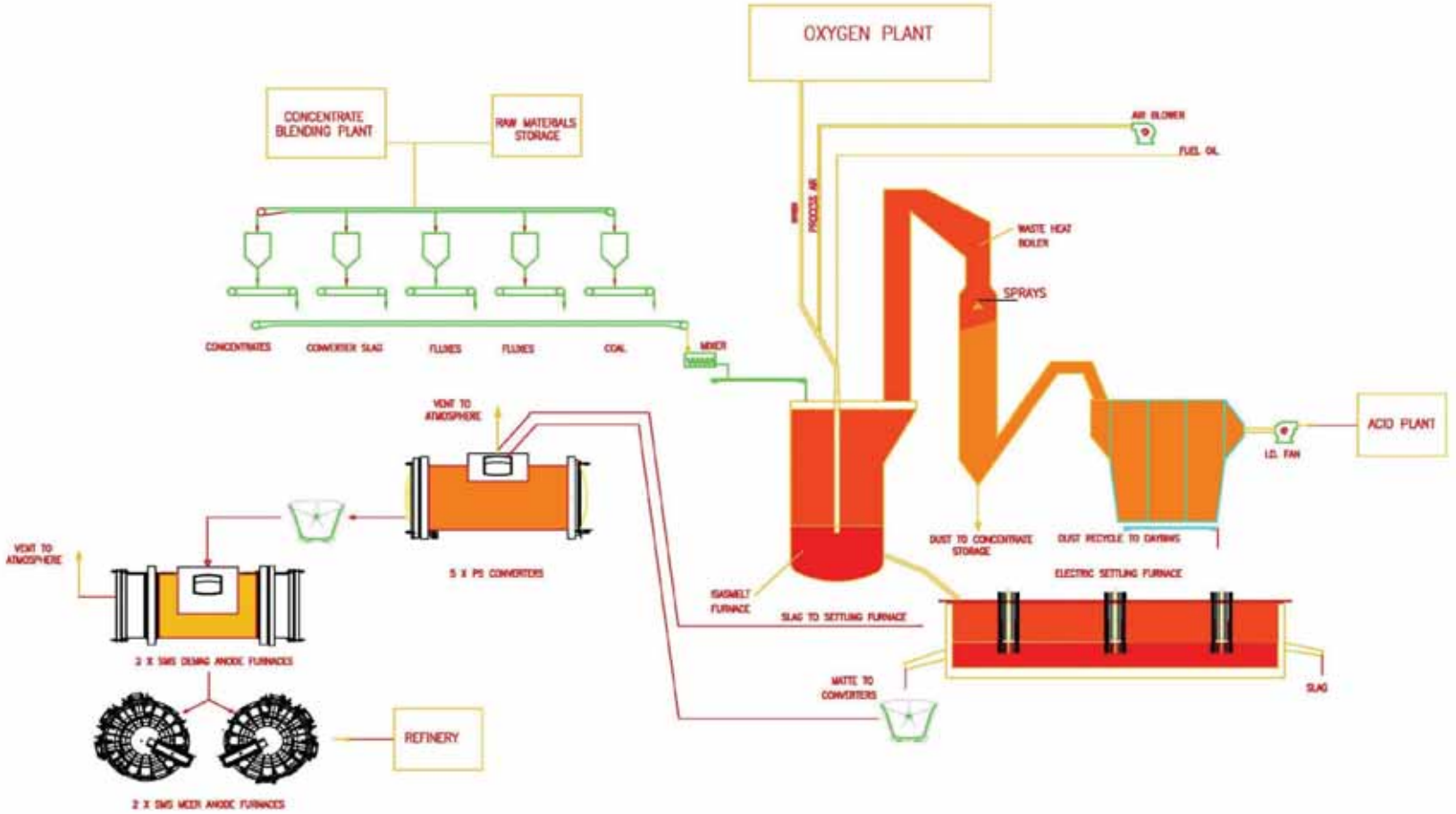


Figure 54: The Mufulira Smelting Plant

Figure 55: Molten Metal "Matte" being poured into the Converter

The matte is upgraded to blister copper in the converters by removing iron and sulphur. The enriched metal, called blister copper is transferred to one of the two anode furnaces. At present the converters vent to the atmosphere but there is a project in progress to replace the existing 30 feet by 13 feet converters with larger 35 feet by 15 feet units with gas handling facilities. There will be two of these new bigger converters, one to be commissioned in December 2011 and second one in December 2012. In addition to these two new bigger converters, one of the existing converters will be refurbished and a new water cooled hood with off gas handling facility will be installed in all the three. Capturing the gas not only reduces the environmental emissions but as the off gas contains significant amounts of sulphur dioxide are captured and sent to the sulphuric acid plant to produce acid.

The blister copper is further refined in anode furnaces to remove sulphur and oxygen before it is cast as anodes. Two new anode furnaces each of 400 T capacity and a twin anode casting Wheel of 80 tonnes per hour casting capacity were installed into the smelter facility replacing obsolete and inefficient anode furnaces and casting wheel. Anodes are sent by rail cars to the refinery for electro refining.

We were unable to witness the anode furnaces in operation but there was plenty of evidence that they were working in the form of freshly cast anodes.

Figure 56: Old Converter in Operation

Figure 57: New Anode Furnaces each of 400T Capacity

Figure 58: New Twin Anode Casting Wheel (80 tph capacity)

5.3.6 Electro Refining Section

The next step in the process is to refine the metal to improve its purity and make it into a saleable product.

5.3.6.1 Cathode Starter Sheet Preparation

Similar to the EW process mentioned previously some of the copper anodes are placed into cells with titanium blanks as cathodes. The current is passed through the cell core and the titanium blanks are plated with pure copper. The titanium blanks are pulled after a comparatively short time (24 hours), when the deposit 0.5 to 0.8mm thick the copper sheets, as deposited, are stripped. These copper sheets are then used as the starter sheets for the electro refining process. A new starter sheet preparation machine was installed in 2005.

Electro refining differs from EW in that metal is produced from the anode onto the copper cathode, whereas in EW copper is produced out of the electrolyte solution and deposited onto the cathode. Electro-refining ends up with finished copper cathodes with a copper purity of 99.99% Cu whereas in electro wining Cu purity is around 99.95%. In electro refining the copper anode has to be replaced after every 24 days of anode cycle.

5.3.7 Electro Refining

In the electro refining commercial section the cast copper anodes are placed into cells with the copper starter sheets.

Figure 59: Cast Copper Anodes

Figure 60: Tank House

By utilising the electrolysis process copper is moved from anodes to electrolyte solution and then to starter sheet. The impurities are left behind in the cells as sludge (Se, Au, Ag, Pt, Pd and others) and some amount goes into electrolyte solution (Fe, Ni, Bi and others). The cathodes thus produced have a purity of 99.99% Cu. The anodes decrease in size over time as they are consumed by the electro refining process and the copper is removed onto the cathode. The spent anodes are then recycled back for melting in converters/anode furnace in Smelter.

5.3.8 Tank House General

The Mufulira refinery was originally equipped with four tank houses (T/H 1, 2, 3 and 4). Tank houses 1, 3 and 4 and the stripper section have been overhauled and upgraded in addition tank house 5 was commission in 2006. Tank house 2 was commencing a refit at the time of the economic slump in 2009 when the copper price fell dramatically and the rebuild project was put on hold. At this stage there is adequate electro refining capacity in 1, 3, 4 and 5 for the tonnage of copper being produced. In view of this tank house 2 is not currently required. Should tonnage increase, the tank house could be returned to service in the future after a major rebuild.

The Mufulira tank house is self sustaining as it makes its own copper starter sheets and receives a continuous supply of anodes from the Smelter.

Figure 61: The Closed Module 2 of the Tank House

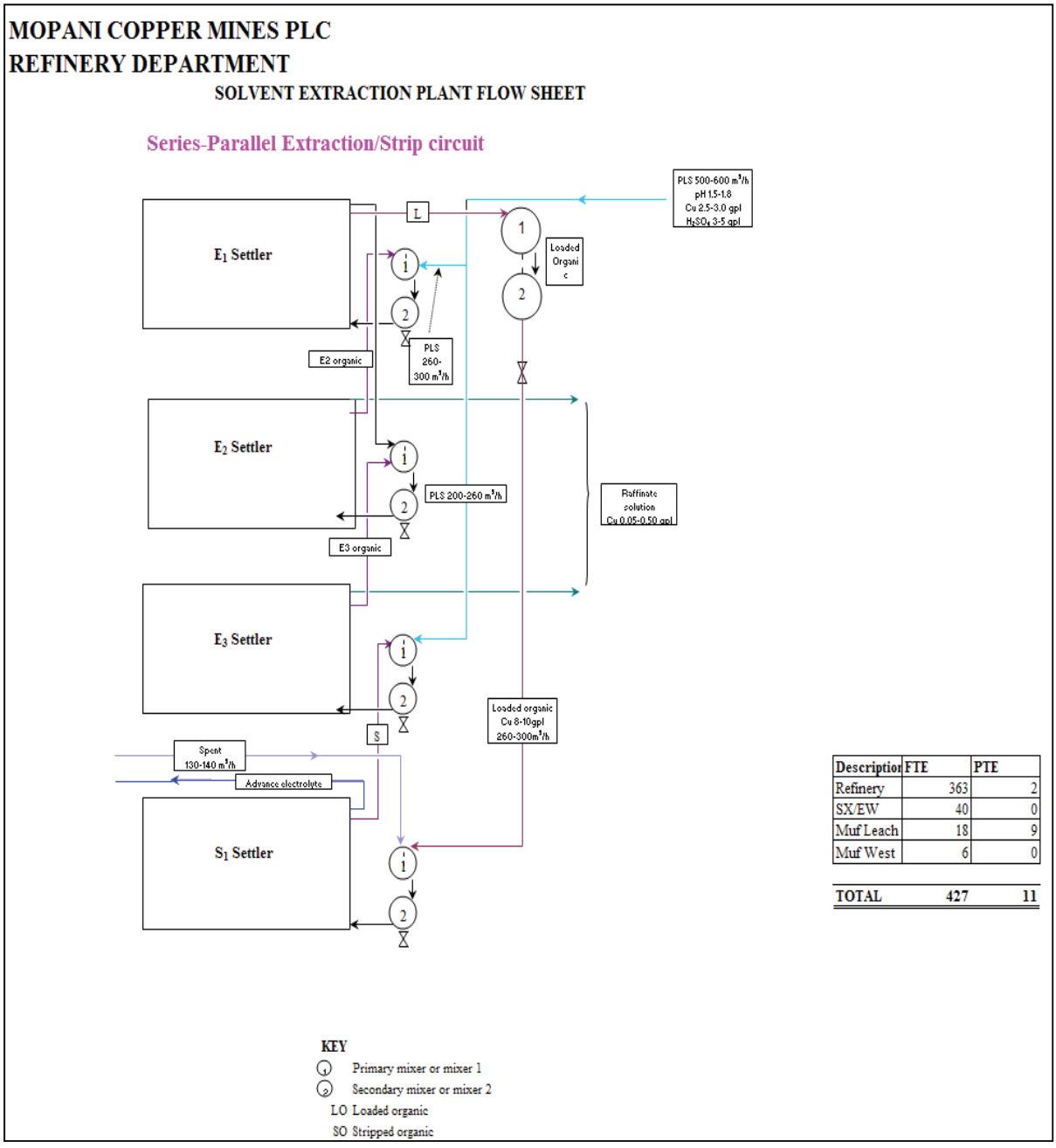
5.3.9 Other Processing

Mufulira also has an underground leach facility where the oxide ore or acid soluble copper is leached by contact with sulphuric acid in solution. This leached solution is then sent to the SX plant where the copper, in the Pregnant Leach Solution, ("PLS") is extracted through the organic phase and then stripped into the spent electrolyte solution. At this point the solution becomes "advance electrolyte". Advance electrolyte is taken to electrowinning plant to recover copper in a similar manner to the Nkana copper EW plant.

There is also a leaching facility at Mufulira, where Acid soluble copper in oxide ore is leached with acid by air agitation. PLS is sent to the SX plant and after recovering copper into advance electrolyte the copper is produced by EW.

A part of tank house 5 is used for EW with the majority of the tank house currently being used for the electro refining of cast anodes.

Figure 62: Leach Facility at Mufulira



Description	FTE	PTE
Refinery	363	2
SX/EW	40	0
Muf Leach	18	9
Muf West	6	0
TOTAL	427	11

Figure 63: Diagram showing the SX Circuit for Recovery of the Oxide "Acid Soluble" Copper

A portion of tank house 5 is used for the electro wining of the oxide ore or acid soluble copper with the majority of the tank house being used for the electro refining of the cast anodes.

Figure 64: Electro Winning Cells in the Tank House

5.3.10 Solvent Extraction (SX)

Three SX plants were installed to help to produce a cleaner copper rich solution more suitable for the EW circuit. In this circuit the PLS from the Leach and Mufulira west heap leach facility is contacted with an organic phase.

The copper extracted is loaded into organic, where the loaded organic then comes into contact with spent electrolyte from EW plant. During the process the copper dissolves back into the electrolyte due to high acid in electrolyte. This is called “advance” electrolyte and is used for EW.

5.3.11 Drawings and Annexures

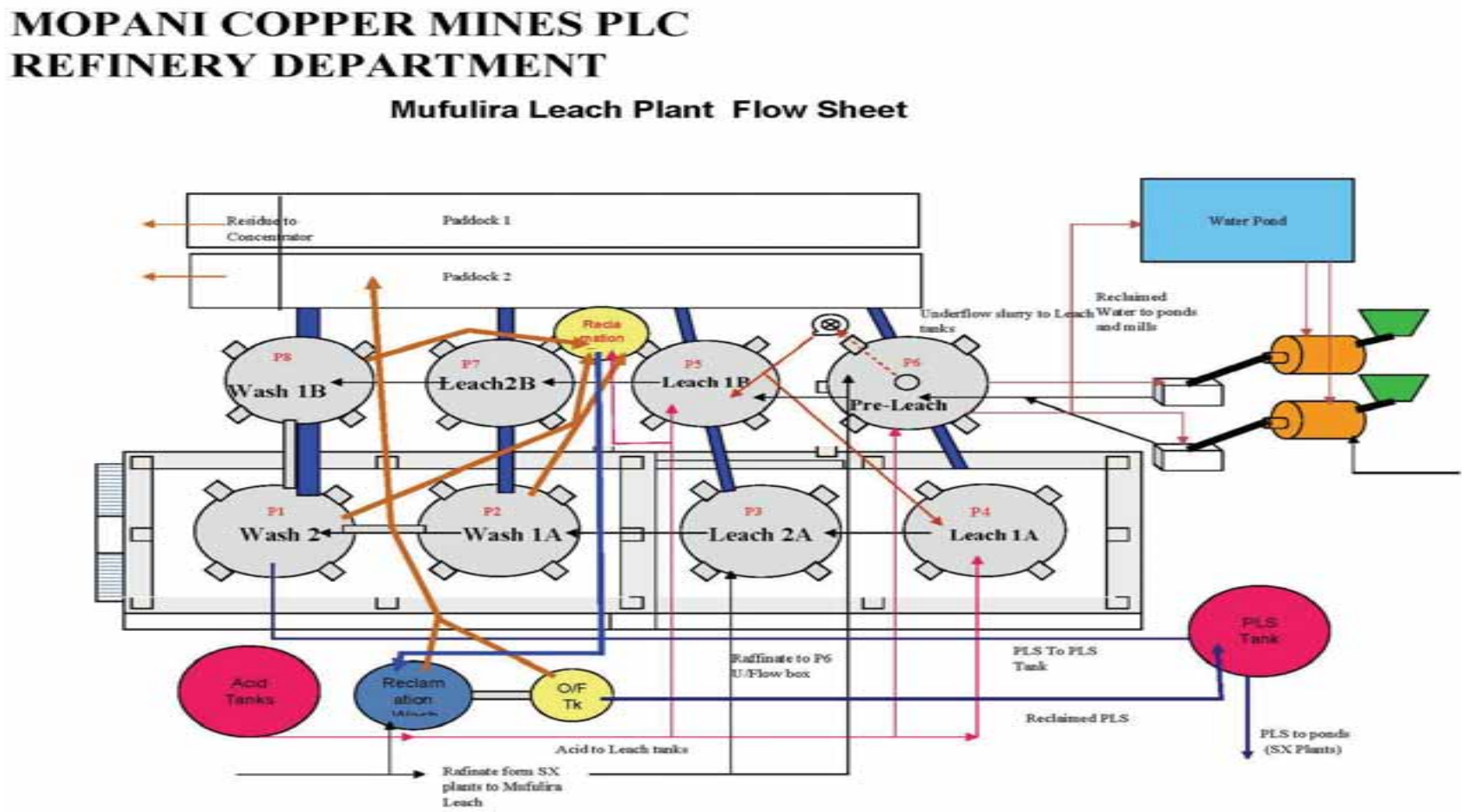


Figure 65: Mufulira Leach Plant Flow Sheet

5.3.12 Summary

Like Nkana, Mufulira is an old installation; however it remains a critical part of the Mopani operation as Nkana does not have any smelting capability.

While it is an old plant and would be replaced by a newer more modern flow sheet if it was to be built today it does what it has to with ease as it is not under pressure from the mining operation.

At the time of our visit, it gave the impression of a well run and well maintained operation with both management and the workforce capable and, more importantly, well motivated. When compared to one of its neighbours KCM it is head and shoulders above it in all respects.

6.0 TAILINGS AND WASTE

6.1 Phase 2 – Environmental, Health and Safety – Tailings Storage Compliance

6.1.1 Mufulira TD11 – Tailings Storage Dam

Figure 66: Mufulira tailings storage dam

The Mufulira tailings dam was commissioned in 1978. The original pre-deposition works consisted of two starter embankments on the northern and southern perimeter, see Figure 66. The facility has an annual deposition rate of 1.3 Mt. and a design life capacity of 90 million tonnes. The facility is expected to reach its capacity in 2030. The natural slope of the site is from north to south. There is a fresh water stream diversion along the western embankment, flowing to a southern direction. This facility is operated as a cyclone dam with the fines reporting to the basin area and the coarser tailings used as outer wall building material. Originally the supernatant water was decanted using a conventional penstock tower gravity system. With the demise of the original system, a trench / spillway decant system is now in operation for the remainder of the facility life. This facility is, and has always has been operated by the mine management team. This facility was originally designed by Scott Wilson Piesold Consulting Engineers England. The Zambian branch is the consultant of choice in technical support and auditing role on the mine.

6.1.2 Desk top review of available environmental reports for Mufulira TD11

The following reports were available for review:

- Environmental Management Plan for Mufulira Mine 2003 (Steffen, Robertson and Kirsten South Africa (Ltd).
- TD11 Slope Stability Analysis Report 2010 (Scott Wilson Piesold Zambia Ltd.)
- Emergency Preparedness and Response Plan 2006 (Scott Wilson Piesold Zambia Ltd.)
- Licence to own/operate Waste Disposal Site (ECZ/ND/WM4/103/9)
- Licence to discharge Waste Water (ECZ/ND/WP3/030/9)

6.1.3 Assessment of compliance with statutory requirements

Based on the reviewed bi-annual audit report January to June 2010, submitted to the Environmental Council of Zambia ("ECZ") and Mines Safety Department ("MSD") by Mopani Mine. The relevant license approvals have been obtained for the period 1st January 2010 to 31st December 2010. The above listed licences have conditions governing the compliance and monitoring protocol. Any non compliance to the conditions listed in these licences, may result in the aforementioned licences been revoked.

6.1.4 Identifying the main areas of environmental risks and performance

The main areas of environmental risk are as follows:

- **Dust:** Dust suppression on this facility is a major challenge due to the presence of a high percentage of fines reporting to the basin area. Special attention should be given to dampening the large dry beach area to the south of the facility. A sprinkler system could be introduced to mitigate this risk and encourage the introduction of vegetation.
- **Closure:** The southern downstream embankment area has been neglected from a rehabilitation perspective, such that this process is presently been accelerated by the mine management. Wind erosion and the formation of gullies may cause stability issues to the outer embankments. However no such gullies have formed to date.
- **Groundwater:** Monitoring boreholes are in place and all data is reported in the latest bi-annual report.
- **Surface Water:** Pool management and water discharge quality is well managed and reported within the licensing compliance regulations.
- **Seepage:** Drain flow and water quality is monitored at drain exit points along with seepage flow from the redundant penstock tower pipelines.
- **Freeboard:** There is a minimum vertical target height of 2m as set and maintained as a minimum by the design engineers, as reported in the listed stability analysis report. This has been achieved with a minimum of operational effort.
- **Stability:** The stability analysis report has to date reported a greater than 1.3 FOS on all analysis reporting by Zambia Ltd ("Scott Wilson").

6.1.5 Review of rehabilitation provisions and liabilities

A third party audit was conducted in 2008 as requested by the regulator in setting up a calculated contribution over five years as part of the government closure trust fund to the sum of USD 1,039,987, this is a consolidated cost for Mufulira mine site. Although this money is refundable post closure, it is also seen as an insurance policy to cover any environmental infringements not addressed by the

mine. The costs associated with closure and long term post closure maintenance of the tailings dam were not available for review.

Monitoring boreholes are in place and water quality is measured as part of the EMP compliance as is with the discharge water quality. Seepage and drainage discharge points are well documented in the bi-annual reports. Dust is always going to be an environmental concern on this facility, a sprinkler system of sorts needs to be introduced to encourage dampening down of the dry beach. Although there are monitoring systems and management application in evidence, more mitigation needs to be evident in the day to day running of this facility.

6.1.6 Summary and assessment of the health and safety management programmes

- There is a comprehensive health and safety organizational structure and management plan with appropriate line structure as presented in the EIS report. There is also a health, safety and environmental policy in prominence at the mine.
- The Emergency Preparedness and Response Plan was developed and presented in 2006 by ("Scott Wilson")

6.1.7 Details of injury and fatality statistics

The mine has an approved and stated policy by the shareholders and corporate management structure regarding and injury or fatality. This policy covers all mine property and activities undertaken by mine employees. To date there have been no injuries or fatalities while operating the tailings facility.

Table 26: 31 December 2010 Mopani Headcount

December 2010 Mopani Headcount	
Mining	3,495
Engineering	747
Processing	2,228
General and administration	632
Corporate	420
Total	**7,522**
Contract employees MCM	488
Grand total	**8,010**

There are currently 6,413 contractors on site.

6.2 Nkana TD15a – Tailings Storage Dam

Figure 67: Nkana tailings dam

Nkana tailings dam was commissioned in 1978. The original pre-deposition works consisted of western and central starter embankments, see Figure 67. The facility has an annual deposition rate of 3.5 Mt, and a design life capacity of 181 Mt. The facility is expected to reach its capacity in the year 2030. The natural slope of the site is from west to east. There is a fresh water dam to the eastern side of the facility. This facility is operated as a cyclone dam with the fines reporting to the basin area and the coarser tailings used as outer wall building material. The supernatant water is decanted using a conventional penstock tower gravity system. This decant system is managed during peak flows, via the opening and sealing of numerous inlet points along the decant pipeline. The dam is operated by the mine management team. It was originally designed by Scott Wilson Piesold Consulting Engineers England. Their Zambian branch is the consultant of choice in technical support and auditing role on the mine.

6.2.1 Desk top review of available environmental reports for Nkana TD15a

The following reports were available for review:

- Environmental Management Plan for Nkana Mine 2003 (Steffen, Robertson and Kirsten, South Africa (Ltd).
- TD15a Slope Stability Analysis Report 2008 (Scott Wilson Piesold Zambia Ltd.)
- Emergency Preparedness and Response Plan 2006 (Scott Wilson Piesold Zambia Ltd.)
- Licence to own/operate Waste Disposal Site (ECZ/ND/WM4/084/9)
- Licence to discharge Waste Water (ECZ/ND/WP3/020/9)

6.2.2 Assessment of compliance with statutory requirements

The bi-annual audit report, for the period January to June 2010, submitted to the Environmental Council of Zambia ECZ and Mines Safety Department ("MSD") by Mopani Mine, was reviewed. The relevant license approvals have been obtained for the period 1st January 2010 to 31st December 2010. The above listed licences have conditions governing the compliance and monitoring protocol. Any non compliance to the conditions listed in these licences, may result in the aforementioned licences being revoked.

6.2.3 Identifying the main areas of environmental risks and performance

The main areas of environmental risk are as follows:

- **Dust:** Suppression on this facility appears manageable and required little dampening due to the presence of natural vegetation within the basin and dry beach area. This is partially due to the presence of higher percentage of coarser tailings reporting to the basin area. Special attention has been given to the outer slopes with the presence of robust vegetation as planted by the operation team. A sprinkler system could be introduced to mitigate any possible risk in the dry season.
- **Groundwater:** Monitoring boreholes are in place and all data is reported in the latest bi-annual report.
- **Surface Water:** Pool management is decanted through a multi inlet penstock gravity discharge system, and water discharge quality is well managed and reported within the licensing compliance regulations.
- **Seepage:** Drain flow and water quality is monitored at drain exit points into a well lined storm water channel system.
- **Freeboard:** The freeboard is well in excess of the minimum vertical target of 2m which is set and maintained by the design engineers and reported in the listed stability analysis report. This has been achieved with a minimum of operational effort.
- **Stability:** The stability analysis report has to date reported a greater than 1.3 factor of safety on all analysis reporting by Scott Wilson.
- **Closure:** Progressive rehabilitation for closure is well presented on all downstream flanks of this facility. The coarse material and flattish geometry combined with the selection of robust vegetation are proving sustainable in achieving the desired closure result.

6.2.4 A review of rehabilitation provisions and liabilities

A third party audit was conducted in 2008 as requested by the regulator in setting up a calculated contribution over five years as part of the government closure trust fund to the sum of USD 880,068, this is a consolidated total cost for Nkana mine site. Although this money is refundable post closure, it is also seen as an insurance policy to cover any environmental infringements not addressed by the mine. The costs associated with closure and long term post closure maintenance of the tailings dam were not available for review.

Monitoring boreholes are in place and water quality is measured a part of the EMP compliance as is with the discharge water quality. Seepage and drainage discharge points are well documented in the bi-annual reports. Dust is always going to be an environmental concern. A sprinkler system of sorts may need to be introduced to encourage dampening down of the dry beach areas. Although there are monitoring systems and management application in evidence, more mitigation may need to be evident should climatic conditions change drastically in the future.

6.2.5 Summary and assessment of the health and safety management programmes

- There is a comprehensive health and safety organizational structure and management plan with appropriate line structure as presented in the EIS report. There is also a health, safety and environmental policy in prominence at the mine.
- The Emergency Preparedness and Response Plan was developed and presented in 2006 by ("Scott Wilson")

6.2.6 Details of injury and fatality statistics

The mine has an approved and stated policy by the shareholders and corporate management structure regarding and injury or fatality. This policy covers all mine property and activities undertaken by mine employees. To date there have been no injuries or fatalities while operating the tailings facility.

7.0 CLOSURE

7.1 Nkana

7.1.1 Approach and Limitations to Closure Cost Review

7.1.1.1 Approach

An indicative closure cost estimate, based on available information, was conducted to serve as a basis for the review of the provided closure costs. The estimate also allows commenting on possible shortcomings with respect to the provided closure costs and additional financial provision required.

The approach followed is summarised as follows:

- Identification and delineation of the relevant mining areas and associated infrastructure, primarily from Google Earth imagery and available plans from Mopani;
- Identification of infrastructure and land use sub-categories within the above mining operations area characterised by similar conditions, for example light, medium or heavy infrastructural areas, waste rock and spoils stockpiles, and moderately or severely disturbed surface conditions;
- Interpretation of the type, nature and sizes of structures from available information and measurement of the delineated areas in AutoCAD;
- Determination/verification of unit rates for plant dismantling and demolition, as well as associated reclamation, as per recent tenders available to GAA, similar work conducted recently in Africa, as well as consultation with demolition practitioners;
- Application of the above unit rates and associated quantities in spreadsheets arranged into sub-categories to illuminate the respective closure cost components for the cost review;
- Objectively determining the indicative closure cost based on the approach and criteria adopted by GAA for this review and comparing the findings from this costing to the existing closure costs conducted by Scott Wilson consultants; and
- Compilation of a report reflecting the approach applied by GAA in determining the closure costs, as well as the cost comparison. Matters requiring attention to ensure that future closure costing is improved are included in this report.

7.1.1.2 Limitations

- This review of the existing closure costs was conducted as a desktop assessment based on available information and subject to time constraints. As a result the closure cost estimation

provided by GAA is indicative only, acting as a basis for comparison of the available costs and to assess whether these are of an appropriate (order of magnitude);

- A site visit to the mine in support of the overall project was carried out in December 2010; and
- The quantum of information and documentation obtained during the site visit could not be confirmed with mine personnel at the time, however a meeting was held with management representatives from Mopani in January 2011 to verify matters relating to battery limits and certain Zambian approaches to closure.

7.1.2 Available information

The sources of information used for the closure cost estimate were as follows:

- Quantum spread sheet Nkanav3.xls, by Scott Wilson;
- Environmental Protection Fund Audit for Nkana Mine, Zambia. July 2010. Final Report (Report no. D131704_NKA), by Scott Wilson;
- Marked-up map entitled Nkana Plant Area and the Vicinity Dated 11-09-20000 (DRG. No. E/A/637/4;
- Map entitled Nkana Site – Nkana Mining License Area (Fig. 2) dated Oct 2010; and
- Marked-up map of Nkana mine entitled Revision 11 Mining Licence Updated 25-08-2000

The above-mentioned Scott Wilson report primarily focuses on the audit of the environmental conditions of the mine and related areas and contains information on the approach and methodology applied in the determination of the closure costs. The costing is primarily based on the Zambian guidelines issued under Statutory Instrument No.29 of 1997 by the Ministry of Mines and Minerals Development. Scott Wilson's estimated closure cost is based on the bills of quantities for the volumes requiring demolition and areas requiring rehabilitation as presented in SRK 2003, as well as additional Bills of Quantities that have been provided by Mopani Copper Mines ("MCM") for new facilities.

7.1.3 Battery Limits

The above reports and associated information do stipulate the battery limits for which the documented closure costs apply. However following a meeting held with Mopani on 20 January 2011, the battery limits were largely clarified from the available information and the interpreted Google Earth imagery.

These limits are described below and reflected on (Figure 68). The infrastructure description obtained from the available information is listed separately from those aspects inferred from the imagery.

The key surface areas obtained from the imagery and confirmed with Mopani can be summarised as follows:

- Overall mine site and infrastructural complex, including fugitive disturbed areas: 101.5ha. This area excludes tailings storage facilities and material dumps or stockpiles
- Main plant infrastructure complex and related areas : 69.3ha;
- Riverine areas requiring reclamation and reinstatement: 5.3ha;
- Tailings storage facilities with "installed" footprint area : 653.5ha; and
- Area of tailings storage facilities already filled with tailings: 522.8ha (assumed 80 percent coverage);

Figure 68: Battery limits assumed for GAA's cost review

7.1.3.1 Available information

The infrastructure inventory and description obtained from the existing closure cost documentation are as follows:

Nkana Mine operates four vertical shafts with associated head gear (Figure 2), namely:

- South Ore Body ("SOB"),
- Central Shaft,
- Mindola Sub-vertical; and
- Mindola North.

The following open pits are currently active and supply ore to the Nkana Leach Plant:

- Mindola North – an existing operation located within the centre of the mining area and being extended towards the north;
- Area A – a shallow pit extending to a depth of approximately 30m and is situated south of Mindola North. The pit is being extended towards the existing Mindola North pit; and
- Area E – Extension work being carried out at the end of the old pit.

The major processing facilities within the mine licence area for which Mopani are responsible comprise the following:

- Concentrator;
- Nkana Cobalt Plant; and

- Nkana Leach Plant.

There are currently four tailings storage facilities ("TSF") at Nkana Mine, namely TSF 15A; TSF 15; TSF 52 and TSF 68 and of the four tailings storage facilities only one is active with the other three being decommissioned.

The major ancillary and support facilities comprise the following:

- Engineering workshops;
- Analytical laboratory;
- Power and water supply systems;
- Rolling stock to support the mine operations;
- A mine hospital;
- Satellite clinics; and
- Primary school.

7.1.3.2 Additions by GAA

The following closure costing components and related activates were also considered by GAA in the determination of the indicative closure cost estimate:

- Collection, handling and disposal of demolitions waste;
- The reclamation and reinstatement of affected streams and drainage lines; and
- Reclamation of disturbed areas, including the collection, handling and disposal of contaminated soil as well as the removal and disposal of fugitive concrete.

Areas excluded

With the privatisation of the state-owned ZCCM the liability for a number of assets of the overall Nkana Mine were retained by the state through ZCCM-IH. These areas and activities were excluded from the Scott Wilson 2010 work and hence also from the GAA review. These include the following:

- The smelter complex and refinery that belong to other operators and not Mopani;
- The slag dumps that belong to other operators, i.e. KCM and Chambishi Metals;
- Overburden dumps (OB53 and OB54). OB53 has been identified and excluded from GAA's cost, however OB54 is not obvious from plans and aerial imagery;
- The South Downs tailings complex (TD 33c, 35, 36, 37, 38, 39, 40 and 41);
- The Nkana east tailings dams (TD 25, 26 and 27). None of these tailings dams are visible on plans provided but have not been included in the GAA cost;
- The burial site for toxic substances located west of TD 36;

In addition to the above all key surface infrastructure and associated services that could have a beneficial post closure use were also excluded by GAA. These typically include the hospital, schools and clinics, etc.

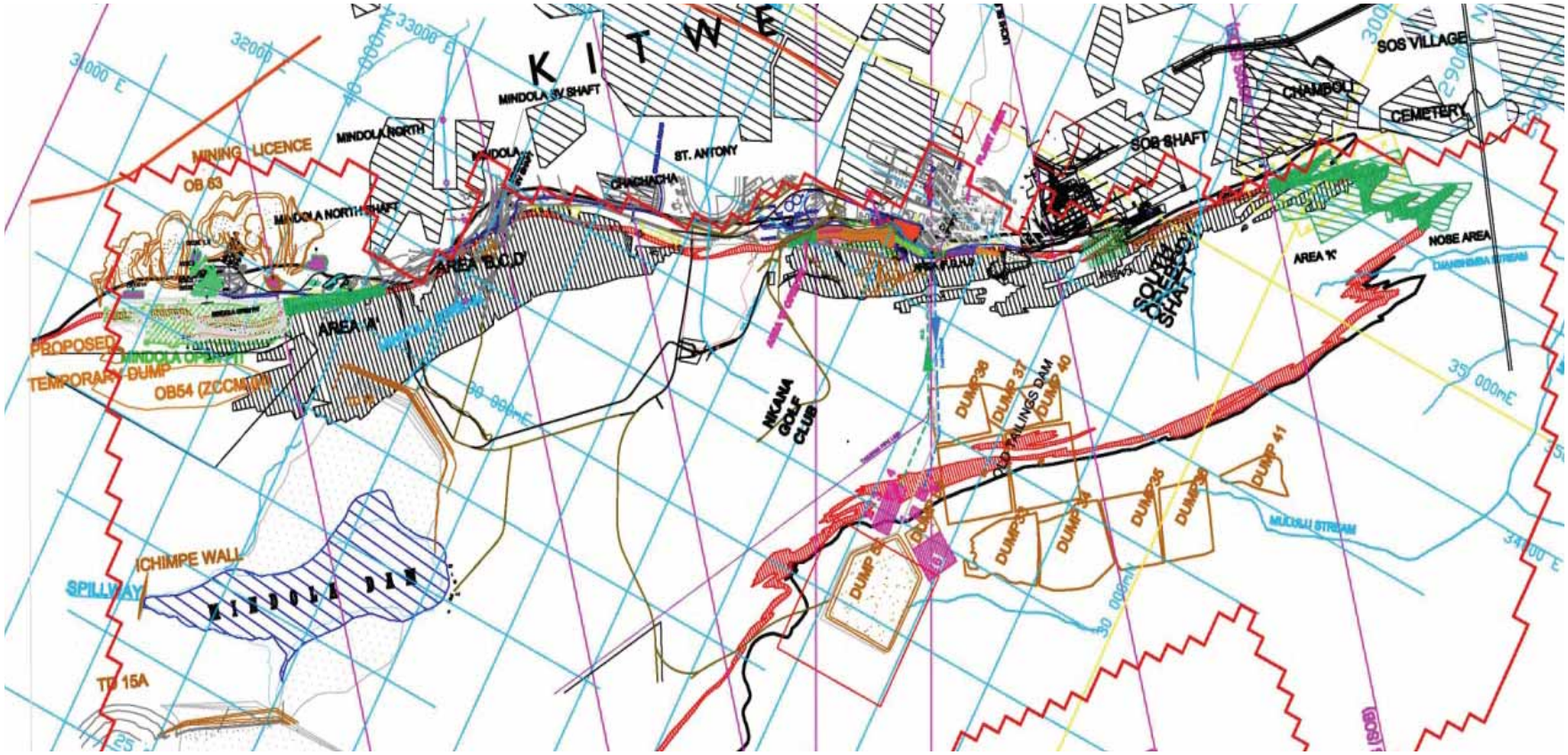


Figure 69: Nkana mine license area

7.1.4 Assumptions and Qualifications

The assumptions and qualifications listed below have been made with respect to the closure cost estimate.

7.1.4.1 General

- The closure costs for the plant site could comprise a number of cost components. This report only addresses the decommissioning and reclamation/restoration costs, equating to an outside (third party) contractor establishing on-site and conducting the decommissioning and reclamation-related work. Other components such as staffing of the plant site following decommissioning, the infrastructure and support services (e.g. power supply, etc.) for the staff, as well as workforce matters such as separation packages and re-training/re-skilling, are outside the scope of this report;

- Based on the above, dedicated contractors would be commissioned to conduct the demolition and work on the mining site and associated areas. This would *inter alia* require establishment costs for the demolition and reclamation contractors and hence, the allowance of preliminary and general ("P&Gs") in the cost estimate. Allowance has also been made for third party contractors and consultants to conduct post closure care and maintenance work, as well as compliance monitoring;

- It is foreseen that demolition waste, such as concrete and building rubble, would be largely inert and that the disposal of such waste would occur within one of the existing mining pits within the mine license area, which would subsequently be rehabilitated. In principle, this is permissible in terms of Zambian legislation and MCM may dispose of such waste lawfully in terms of its current waste disposal licence. Steel and related material from the plant demolition which has salvage value will remain on-site for sale to third parties; and all hazardous waste will be disposed of at an appropriately licensed facility;

- Although the existing plant and related surface infrastructure could have salvage or resale value at closure, no cost off-sets due to possible salvage values were considered in terms of accepted practice and thus only gross closure costs are reported;

- Concrete footings and bases would be demolished to a maximum of 1 000mm below the final surface topography; and

- All useable stockpiles of raw and/or saleable material would have been processed and removed off-site at closure and none of these would remain on site, thus requiring reclamation.

7.1.4.2 Site specific

It has been assumed that at mine closure the mine site and associated disturbed areas will be reclaimed to a sustainable predetermined final land use. This will not only require the dismantling of the physical infrastructure and addressing the aesthetic effects of the reclaimed mine site, but also addressing the residual impacts of the operations on the receiving environment. Therefore, the GAA closure cost estimate addresses, as far as reasonable, the possible latent and residual effects. In this regard the following site-specific closure measures have also been included in the cost estimate:

- Current best practice involves the covering of tailings storage facilities with a 900 mm thick vegetated soil cover to limit the ingress of rainfall into the tailings that could result in contaminated net percolation (waste load) over the TSF footprint area. However Mopani has indicated that due to the very high rainfall in this region, this method of evaporative cover is not used in Zambia and that tailings is often left as is upon closure, as natural vegetation establishment on the tailings itself frequently occurs. Hence GAA has not included any costs for covering of TSFs with a growth medium or evaporative cover; however allowance for the artificial re-establishment of grassland vegetation has been made. ;

- The rehabilitation of evaporation/pollution control ponds will include the following:
  - Removal of sediment up to a depth of 400mm;
  - Removal of synthetic liner;
  - Removal of contaminated soil that could have occurred in those places where the liner has leaked; and
  - Collection, transport and disposal of the contaminated sediment and soil.
- The final mining voids or remaining open pits will not be in-filled and allowed to become open lakes over time with the required access control whilst these are re-watering (flooding) – the only exception being if one of the pits is used for disposal of demolition waste after closure of the plant infrastructure. In order to limit access, an open rock enviro-bund to a height of at least 3 meters and its inside toe 20m from the long term break-back line of the pit/void. The bund will also serve the following purposes:
  - Safety measure to isolate the pit from people and animals by restricting access to the pit and voids;
  - Visual screening; and
  - Divert surface water runoff away from and around the pit, preventing erosion of pit or void lip/edge.
- All the shafts were assumed to be vertical shafts with associated head gear and related infrastructure such as winding houses;
- The existing waste rock and overburden dumps are understood to be currently stable but will be modified and landscaped in order to better integrate into the surrounding landscape;
- Different shaping, levelling and re-vegetation will apply for disturbed areas based on the nature, extent and severity of disturbance. The following categories have been assumed:
  - Generally disturbed areas characterised by transformation or partial absence of vegetation with limited erosion or soil contamination;
  - Areas from which infrastructure has been removed, characterised by severe transformation of the landscape and significant soil contamination and harmful material; and
  - Severely disturbed areas characterised by excessive erosion and complete transformation of the land cover.

  Dedicated rates for the shaping, levelling and reclamation have been applied for the above categories.
- Removal of contaminated soil from disturbed areas as part of general surface reclamation is required for approximately 20 percent of the reclaimed infrastructural footprint areas;
- Allowance has been made for a nominal amount of fugitive concrete to be removed and disposed of;
- Allowance has been made for the de-silting and re-instatement of specific areas of potentially contaminated stream beds and banks, over a 20m wide strip along the streams. An additional allowance has been included for general clean-up of fugitive contamination. Allowance has been made to remove contaminated sediment up to a depth of approximately 400mm as required; and

- Allowance has been made for care and maintenance as well as surface and groundwater quality monitoring to be conducted for a minimum period of 3 years to ensure and assess success of the implemented reclamation and closure measures.

7.1.4.3 Additional allowance

Fixed ratios for P&Gs (6 percent) and contingencies (10 percent) have been applied;

7.1.5 Closure Cost Comparison

To provide a structure for the cost comparison, the costs are presented in a format routinely used for closure cost determinations, addressing the following categories:

- Infrastructural areas;
- Mining areas;
- General surface reclamation;
- Water management;
- Post closure aspects; and
- Additional allowances.

Scott Wilson report primarily focuses on the audit of the environmental conditions of the mine and related areas and contains information on the approach and methodology applied in the determination of the closure costs. The costing is primarily based on the Zambian guidelines issued under Statutory Instrument No.29 of 1997 by the Ministry of Mines and Minerals Development. Scott Wilson's estimated closure cost is based on the bills of quantities for the volumes requiring demolition and areas requiring rehabilitation as presented in SRK 2003, as well as additional Bills of Quantities that have been provided by MCM for new facilities.

The closure costs determined by Scott Wilson and GAA are reflected Table 28. Table 28 provides a comparison of closure measures and related costs. The variations in costs could mainly be due to the following:

- The apparent variance in methodology used between Scott Wilson and GAA. Scott Wilson provided for the sealing of vertical shafts and inclines to the amount of 7200m³, and although all four shafts were measured, only the Mindola main shaft appears to have been included in the costing. Provision was made for four vertical shafts, assumed to be 5.5 meter diameter, in the GAA costs;
- Further to the above, a level of discrepancy in the battery limits adopted for the respective closure cost estimates may still be in evidence;
- Reinstatement of damaged riverine environments to a level that could sustain acceptable aquatic health;
- Safe disposal of demolition waste and the creation and final reclamation of one of the existing open pits for this purpose; and
- Clean-up and safe disposal of contaminated soils and fugitive contamination.

Table 27: Overall cost comparison for Nkana

Closure component	Scott Wilson 2010 (USD Millions)	GAA 2010 (USD Millions)
1. Infrastructural areas	4.96	18.21
2. Mining areas	6.37	7.85
3. General surface reclamation	2.20	1.56
4. Water management	0.00	0.11
Subtotal 1 (for infrastructure and related aspects)	**13.53**	**27.73**
5. Post closure aspects	0.48	0.73
Subtotal 2 (for post-closure aspects)	**0.48**	**0.73**
6. Additional allowances	2.24	4.40
Subtotal 3 (for additional allowances)	**2.24**	**4.40**
GRAND TOTAL	**16.25**	**32.86**

Table 28: Detailed comparison of closure measures and related costs

Category with sub-categories	Evaluation
7.1.5.1 Infrastructural areas	
■ Dismantling of processing plant and related structures; ■ Demolition of steel buildings and structures; ■ Demolition of reinforced concrete buildings and structures; ■ Reclamation of access roads, railways and power lines; ■ Demolition of offices, workshops and residential buildings; ■ Fencing; and ■ Disposal of demolition waste.	■ The respective battery limits for the surface infrastructure are likely to be slightly different from those of the Scott Wilson assessment; ■ The GAA cost was based on identification of different zones of infrastructure namely light, medium and heavy infrastructure, which was done from Google aerial imagery and which may influence the total cost provision for dismantling of infrastructure; ■ At first it appears that the level of detail in the Scott Wilson costing for dismantling of processing plant is to a greater level of detail than the GAA costs. However, it appears that the respective quantities were taken from the 2003 Environmental Impact Statement by SRK (2003). The quantities in this document could not be verified. The GAA costing was based on the extrapolation/adaptation of verified costs for similar mining/industrial complexes; ■ The GAA costing includes the deposition of inert demolition waste in one of the opencast pits and has made provision for rehabilitation in this regard; and ■ The GAA costing for infrastructural areas is more expensive than the Scott Wilson costing mainly due to the waste collection, handling and disposal that has been included in the GAA costs.
7.1.5.2 Mining areas	
■ Opencast reclamation including final voids and ramps; ■ Excavations; ■ Sealing of shafts, adits and inclines; ■ Shaping of stockpiles, waste rock and overburden dumps;	■ The Scott Wilson costing allowed for reclamation of 79 hectares of overburden and spoils at a rate of USD 9193 per hectare; ■ The GAA costing allowed for shaping and vegetation of stockpiles footprint areas, assuming that the stockpiled material will be processed before decommissioning ; ■ The GAA costs allows for the sealing of three vertical and one sub-vertical

Category with sub-categories	Evaluation
■ Vegetation of stockpiles, waste rock and overburden dumps; ■ Reclamation of processing waste deposits and evaporation ponds; and ■ Reclamation of subsided areas.	shafts and the infilling of the associated excavation. The Scott Wilson costs make a nominal allowance for this. ■ The Scott Wilson costs do not include the reclamation of the tailings storage facilities whereas the GAA costs include the establishment of grassland vegetation on all TSFs; ■ GAA costs allow for the reclamation of generally disturbed areas and the clean-up of possible contamination over these areas; and ■ The GAA costing is slightly more expensive mainly due to inclusion of the reclamation of the tailings storage facilities, the additional provisions for sealing of shafts.
7.1.5.3 General surface reclamation	
■ Shaping of disturbed areas; and ■ Vegetation of disturbed areas.	■ The Scott Wilson costs allow for the general surface reclamation of 302.5 ha at a rate of USD 7282 per hectare, whereas the GAA costs allow for the reclamation (shaping and vegetation) of 107.3 hectares; although this area does not include re-vegetation of the TSFs; ■ The GAA costs allow for clean-up of contaminated soils over 20 percent of the infrastructural area, which appears not to be included in the Scott Wilson costs; ■ In addition, the GAA costs allow for the removal and disposal of 500m³ of fugitive concrete; ■ The GAA cost is more expensive, which could be attributed to differences in reclamation assumptions.

Category with sub-categories	Evaluation
7.1.5.4 Water management	
■ Reinstatement of drainage lines; and ■ River reclamation.	■ The Scott Wilson costs do not allow for the reinstatement of drainage lines or the reclamation of contaminated rivers and stream; ■ The GAA cost allows for the reclamation of about 5.3 ha of riverbanks; and ■ The GAA cost allows for the reinstatement of the drainage lines over the full reclaimed areas; thus ■ The costs under this cost category cannot be compared, because these seem to be omitted from the Scott Wilson costs.
7.1.5.5 Post closure aspects	
■ Surface water quality monitoring; ■ Groundwater quality monitoring; ■ Reclamation monitoring; ■ Care and maintenance; and ■ Ongoing water treatment.	■ The Scott Wilson costs allows for 2 to 3 years of maintenance and after care over 700 ha, thus a rate of USD 969.15 per hectare; GAA cost allows for surface, groundwater and reclamation monitoring, as well as care and maintenance for a minimum period of 3 years over an area of 760.8 hectares; ■ Notwithstanding the differences in approach, the overall costs for this category are very similar; and ■ . There is no acid mine drainage at Nkana.
7.1.5.6 Additional allowances	
■ Preliminaries and general; and ■ Contingencies.	Both the Scott Wilson and GAA costs allow 6 percent for preliminaries and general and 10 percent for contingencies

7.1.6 Matters Requiring Further Attention

The following matters that potentially require attention in future closure cost updates have been identified:

- There could be a possibility for ongoing management of contaminated excess mine water arising from the reclaimed mining working, involving collection , handling , treatment and safe dispose of the treated mine water. If this is required, this could add a notable additional cost;
- Compilation of proper inventories of infrastructure and mining activities within the respective battery limits and obtain sign-off by the mine on these;
- Confirmation and documentation of battery limits for the closure costing and providing the motivations/reasons for the inclusion and exclusion of areas;
- On-site quantification and measurement of those closure cost components with uncertainty with respect to the closure measures required and/or which are not adequately addressed in the indicative closure costs;
- The possibility exists that there may be significant impact from mining related spillages on the local stream/river systems and these need to be confirmed by on-site assessment of potentially affected areas by a suitably qualified specialist. In the event that contamination, which can safely be removed without causing excessive damage to the streambeds, is identified, allowance has to be made for at least the de-silting and re-instatement of contaminated stream beds and banks. Other measures may also be required in order; to allow the natural aquatic ecosystems to as far as possible to return. This could have a notable cost and has been excluded from this cost estimate, mainly due to uncertainty on responsibility for this environmental liability and the fact that such areas may not be detected from aerial imagery.

7.1.7 Conclusion

The findings as reflected in this report have primarily been based on the interpretation of Google Earth images and a number of maps for Nkana Mine site and closure related information, provided by the mine. Clarification on a number of issues was obtained at a review meeting held with management from Mopani on 20 January 2011. Where the required information was not available, estimates were made based on experience. Unit rates for the purpose of the review were obtained from GAA's existing data base and/or from demolition practitioners. Where required, these were adapted to reflect site-specific conditions.

The review of the existing closure costs, as well as recommendations in this regard, has been completed from a risk-averse perspective and mainly errs on the side of caution. This approach allows for the costs to be refined as appropriate information becomes available, as opposed to possible under-estimation and associated provision that could lead to liability shortfalls.

This review concludes that the closure costs provided by Scott Wilson are too low. It is recommended that a fair and reasonable financial provision of at least **USD 24 million** be made.

7.2 Mufulira

7.2.1 Approach and Limitations to Closure Cost Review

7.2.1.1 Approach

An indicative closure cost estimate, based on available information, was conducted to serve as a basis for the review of the provided closure costs. The estimate also allows commenting on possible shortcomings with respect to the provided closure costs and additional financial provision required. The approach followed is summarised as follows:

- Identification and delineation of the relevant mining areas and associated infrastructure, primarily from Google Earth imagery and available plans;

- Identification of infrastructure and land use sub-categories within the above mining operations area characterised by similar conditions, for example light, medium or heavy infrastructural areas, waste rock and spoils stockpiles, and moderately or severely disturbed surface conditions;
- Interpretation of the type, nature and sizes of structures from available information and measurement of the delineated areas in AutoCAD;
- Determination/verification of unit rates for plant dismantling and demolition, as well as associated reclamation, as per recent tenders available to GAA, similar work conducted recently in Africa, as well as consultation with demolition practitioners;
- Application of the above unit rates and associated quantities in spreadsheets arranged into sub-categories to illuminate the respective closure cost components for the cost review;
- Objectively determining the indicative closure cost based on the approach and criteria adopted by GAA for this review and comparing the findings from this costing to the existing closure costs conducted by Scott Wilson; and
- Compilation of a report reflecting the approach applied by GAA in determining the closure costs, as well as the cost comparison. Matters requiring attention to ensure that future closure costing is improved are included in this report.

7.2.1.2 Limitations

- This review of the existing closure costs was conducted as a desktop assessment based on available information and subject to time constraints. As a result, the closure cost estimation provided by GAA is indicative only, acting as a basis for comparison of the available costs and to assess whether these are of an appropriate order of magnitude.
- A site visit to the mine site in support of the overall project, also addressing closure cost aspects, was conducted in December 2010;

The quantum of information and documentation obtained during the site visit could not be confirmed with mine personnel at the time of drafting the original report. However a meeting was held with Mopani in January 2011 to verify matters relating to battery limits and certain Zambian approaches to closure and this report amended accordingly.

Maps delineating the exact areas under control of the mine were made available during the review meeting with Mopani in January 2011 to inform the GAA estimates.

7.2.2 Available information

The sources of information used for the closure cost estimate were as follows:

- Quantum spread sheet Mufulirav4 FINAL.xls, by Scott Wilson;
- Environmental Protection Fund Audit for Mufulira Mine, Zambia Final Report July 2010 by Scott Wilson;
- Marked-up plan entitled Mufulira. East Plant & Works, dated 18 Jan 2011; and
- Map entitled Mining Licence and Surface Rights, dated 26th June 2009;

The above-mentioned Scott Wilson report primarily focuses on the audit of the environmental conditions of the mine and related areas and contains information on the approach and methodology applied in the determination of the closure costs. The costing is primarily based on the Zambian guideline issued under Statutory Instrument No. 29 of 1997 by the Ministry of Mines and Minerals Development.

7.2.3 Battery Limits

The above reports, site maps and associated information stipulate the battery limits for which the documented closure costs apply. These limits are described below and reflected on (Figure 68). The infrastructure description obtained from the available information is listed separately from those aspects derived from the imagery.

The key surface areas identified from the imagery and site plans can be summarised as follows:

- Overall mine site and related smelter complex, including fugitive disturbed areas: 1341.38ha;
- Main smelter complex and related areas:76.88ha;
- Riverine areas requiring reclamation and reinstatement: 9.5ha;
- Tailings storage facilities overall delineation: 711.4ha (excluding tailings dam no's 10 and 8); and

Tailings storage facilities already filled by tailings: 569.12 ha (assuming 80% coverage);

Figure 70: Battery limits assumed for GAA's cost review

7.2.3.1 Available information

The infrastructure inventory and description obtained from the existing closure cost documentation are as follows:

- Central conventional underground mine;
- Mufulira East Mine (underground with one shaft);
- Leach mining (carried out in upper Levels of old underground workings)
- Mufulira East heap leach, and Mufulira West heap leach;

- Mufulira West Mine and no. 11 and 12 vertical Shafts;
- Concentrator;
- Smelter;
- Refinery;
- Solvent extraction plants;
- Leach plant;
- Support facilities, including engineering workshops, analytical laboratory, supply chain infrastructure, hospital and school;
- Slag dumps;
- TSF's No. 3, 4, 5, and 11 while 6 and 7 are part of the TSF 11 Complex;
- Waste rock dumps;
- Surface water management infrastructure; and
- Historically disturbed and degraded areas as a result of mining-related activities.

Figure 69 below represents the surface and mining rights of the Mufulira Mine - 2009.

7.2.3.2 Additions by GAA

The following closure costing components and related activates were also considered by GAA in the determination of the indicative closure cost estimate:

- Collection, handling and disposal of demolitions waste;
- The reclamation and reinstatement of affected streams and drainage lines;
- Reclamation of disturbed areas, including the collection, handling and disposal of contaminated soil, as well as the removal and disposal of fugitive concrete; and
- Additional allowances, including preliminary and general ("P&Gs") and contingencies.

There is ongoing management of waste water arising from the mine workings.

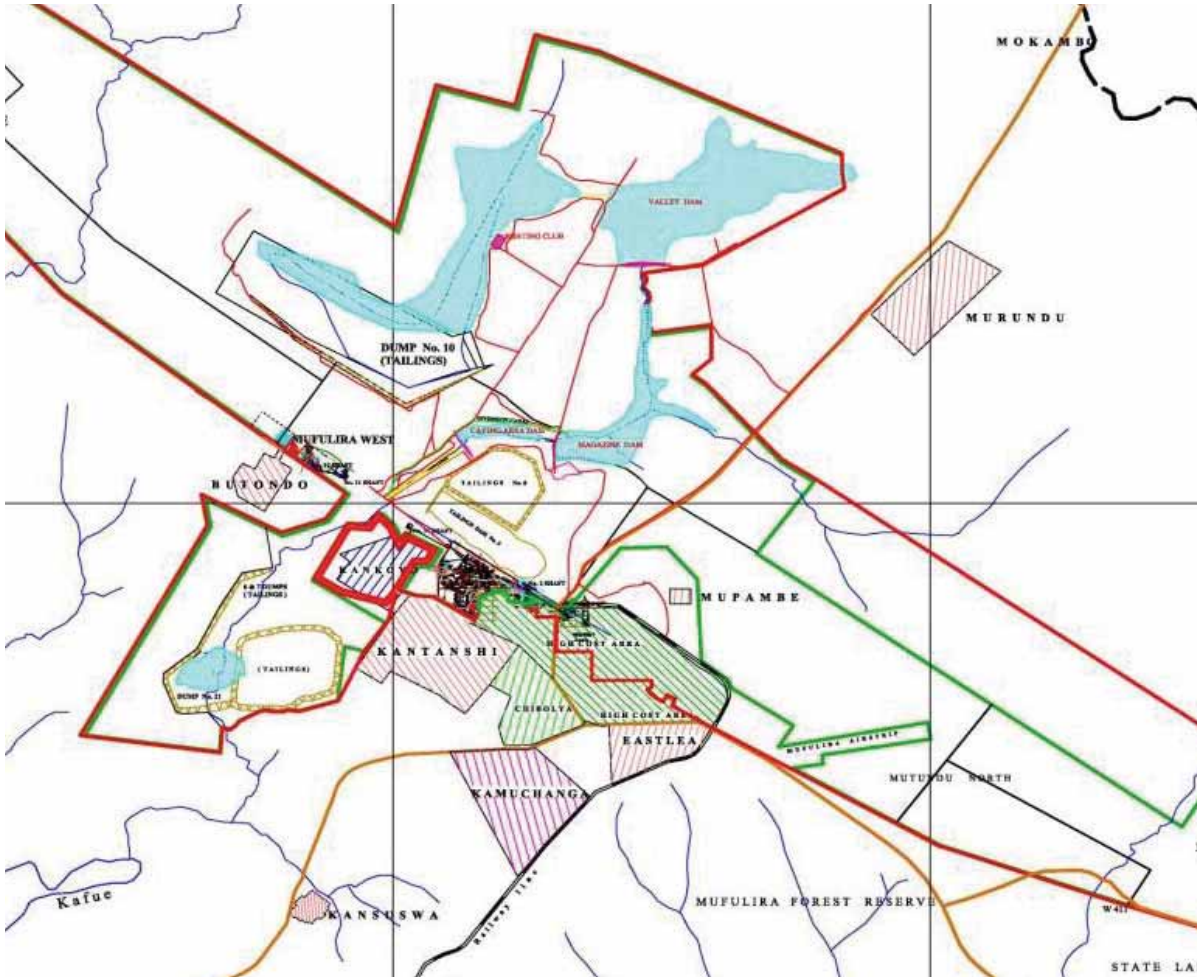


Figure 71: Surface and mining rights – Mufulira

7.2.4 Assumptions and Qualifications

The assumptions and qualifications listed below have been made with respect to the closure cost estimate.

7.2.4.1 General

- The closure costs for the plant site could comprise a number of cost components. This report only addresses the decommissioning and reclamation/restoration costs, equating to an outside (third party) contractor establishing on-site and conducting the decommissioning and reclamation-related work. Other components such as staffing of the plant site following decommissioning, the infrastructure and support services (e.g. power supply, etc.) for the staff, as well as workforce matters such as separation packages, re-training/re-skilling, etc., are outside the scope of this report;

- Based on the above, dedicated contractors would be commissioned to conduct the demolition and work on the mining site and associated areas. This would *inter alia* require establishment costs for the demolition and reclamation contractors and hence, the allowance of P&Gs in the cost estimates. Allowance has also been made for third party contractors and consultants to conduct post closure care and maintenance work, as well as compliance monitoring;

- It is foreseen that demolition waste, such as concrete and building rubble, would be largely inert and that the disposal of this waste (or a portion thereof) would occur within one or more of the existing ventilation shafts within the mine licence area, which would subsequently be sealed, covered and re-vegetated. At the time of writing, GAA could not confirm whether this practice is allowable under Zambian legislation, although Mopani stated that it is and is not uncommon. Steel and related material from the plant demolition which has salvage value will remain on-site for sale to third parties; and all hazardous waste will be disposed of at an appropriately licensed facility;

- Although the existing plant and related surface infrastructure could have salvage or resale value at closure, no cost off-sets due to possible salvage values were considered in terms of accepted practice and thus only gross closure costs are reported;

- Concrete footings and bases would be demolished to a maximum of 1 000 mm below the final surface topography and;

- All useable stockpiles of raw and/or saleable material would have been processed and removed off-site at closure and none of these would remain on site, thus requiring reclamation.

7.2.4.2 Site specific

It has been assumed that at mine closure the mine site and associated disturbed areas will be reclaimed to a sustainable predetermined final land use. This will not only require the dismantling of the physical infrastructure and addressing the aesthetic effects of the reclaimed mine site, but also addressing the residual impacts of the operations on the receiving environment. Therefore, the GAA closure cost estimate addresses, as far as reasonable, the possible latent and residual effects. In this regard the following site-specific closure measures have also been included in the cost estimate:

- Current best practice involves the covering of tailings storage facilities with a 900 mm thick vegetated soil cover to limit the ingress of rainfall into the tailings that could result in contaminated net percolation (waste load) over the TSF footprint area. However Mopani has indicated that due to the very high rainfall in this region, this method of evaporative cover is not used in Zambia and that tailings is often left as is upon closure, as natural vegetation establishment on the tailings itself frequently occurs. Hence GAA has not included any costs for covering of TSFs with a growth medium or evaporative cover; however allowance for the artificial re-establishment of grassland vegetation has been made. In the event that provision of a growth

medium and/or dedicated cover is required, this will have a significant additional cost implication for closure which is not currently reflected.

- There are no historical heap leach dumps at Mufulira. Mopani has indicated that due to the high-temperature smelting process that is conducted at Mufulira, the slag that is produced is inert and does not cause the mobilisation of metals such as copper that could have adverse environmental consequences. Mopani have further indicated that monitoring results confirm this statement. Based on the above information, GAA omitted from its costs the provision of dedicated hazardous waste covers for the slag dumps, as would typically be the case of where metal related contamination is possible. Only allowance has been made for the landscaping of the dumps at closure to improve their appearance and cause less of a visual impact.
- The rehabilitation of evaporation/pollution control ponds will include the following:
  - Removal of sediment up to a depth of 400 mm;
  - Removal of synthetic liner;
  - Removal of contaminated soil that could have occurred in those places where the liner has leaked; and
  - Collection, transport and disposal of the contaminated sediment and soil.
- Different shaping, levelling and re-vegetation methods will apply for disturbed areas based on the nature, extent and severity of disturbance. The following categories have been assumed:
  - Generally disturbed areas, characterised by transformation or partial absence of vegetation with limited erosion or soil contamination;
  - Areas from which infrastructure has been removed, characterised by severe transformation of the landscape and significant soil contamination and harmful material; and
  - Severely disturbed areas characterised by excessive erosion and complete transformation of the land cover.

  Dedicated rates for the shaping, levelling and reclamation have been applied for the above categories.
- Removal of contaminated soil from disturbed areas as part of general surface reclamation is required for approximately 20 percent of the reclaimed infrastructural footprint areas;
- Allowance has been made for a nominal amount of fugitive concrete to be removed and disposed of;
- Allowance has been made for the de-silting and re-instatement of specific areas of potentially contaminated stream beds and banks over a 20m wide strip along the streams. An additional allowance has been included for general clean-up of fugitive contamination. Allowance has been made to remove contaminated sediment up to a depth of approximately 400 mm as required; and
- Allowance has been made for care and maintenance, as well as surface and groundwater quality monitoring, to be conducted for a minimum period of 3 years to ensure and assess success of the implemented reclamation and closure measures.

Fixed ratios for P&Gs (6 percent) and contingencies (10 percent) have been applied.

7.2.5 Closure Cost Comparison

To provide a structure for the cost comparison, the costs are presented in a format routinely used for closure cost determinations, addressing the following categories:

- Infrastructural areas;
- Mining areas;
- General surface reclamation;
- Water management;
- Post closure aspects; and
- Additional allowances.

Scott Wilson report primarily focuses on the audit of the environmental conditions of the mine and related areas and contains information on the approach and methodology applied in the determination of the closure costs. The costing is primarily based on the Zambian guidelines issued under Statutory Instrument No.29 of 1997 by the Ministry of Mines and Minerals Development. Scott Wilson's estimated closure cost is based on the bills of quantities for the volumes requiring demolition and areas requiring rehabilitation as presented in SRK 2003, as well as additional Bills of Quantities that have been provided by MCM for new facilities.

The closure costs determined by Scott Wilson and GAA are reflected in Table 30. Table 30 provides a comparison of closure measures and related costs. The differences could be due to the following;

- The inclusion of the re-vegetation of the no.3, 6 and 7 TSFs in the GAA costs that appears to have been omitted from the Scott Wilson costs, although allowance has been made (by Scott Wilson) for rehabilitation of 244ha of process waste deposits;
- Further to the above, a general discrepancy in the battery limits adopted for the respective closure cost estimates;
- Re-shaping and limited landscaping of the existing slag dumps in order to improve their appearance, which does not seem to have been taken into consideration in the Scott Wilson costing;
- Reinstatement of an area of potentially damaged riverine environment to a level that could sustain acceptable aquatic health;
- Safe disposal of demolition waste into one or more of the ventilation shafts and the final reclamation of the affected area; and
- Clean-up and safe disposal of contaminated soils and fugitive contamination.

Table 29: Overall cost comparison for Mufulira

Closure component	Scott Wilson 2010 (USD Millions)	GAA 2010 (USD Millions)
1. Infrastructural areas	10.05	19.53
2. Mining areas	4.97	3.32
3. General surface reclamation	0.87	5.37
4. Water management	0.00	0.73
Subtotal 1 (for infrastructure and related aspects)	**15.89**	**28.95**
5. Post closure aspects	0.68	1.03
Subtotal 2 (for post-closure aspects)	**0.68**	**1.03**
6. Additional allowances	2.65	4.80
Subtotal 3 (for additional allowances)	**2.65**	**4.80**
GRAND TOTAL	**19.22**	**34.87**

Table 30: Detailed comparison of closure measures and related costs

Category with sub-categories	Evaluation
7.2.5.1 Infrastructural areas	
■ Dismantling of processing plant and related structures; ■ Demolition of steel buildings and structures; ■ Demolition of reinforced concrete buildings and structures; ■ Reclamation of access roads, railways and power lines; ■ Demolition of offices, workshops and residential buildings; ■ Stream diversions; ■ Fencing; and ■ Disposal of demolition waste.	■ The respective battery limits for the surface infrastructure appear to be somewhat different from those of the Scott Wilson assessment. ; ■ The GAA cost was based on identification of different zones of infrastructure namely light, medium and heavy infrastructure, which was done from Google aerial imagery and which may influence the total cost provision for dismantling of infrastructure; ■ At first it appears that the level of detail in the Scott Wilson costing for dismantling of processing plant is to a greater level of detail than the GAA costs. However, it appears that the respective quantities were taken from the 2003 Environmental Impact Statement by SRK. The quantities in this document could not be verified. The GAA costing was based on the extrapolation/adaptation of verified costs for similar mining/industrial complexes; ■ The GAA costing includes the deposition of inert demolition waste in one or more of the ventilation shafts within the mine license area and has made provision for rehabilitation in this regard; and ■ The GAA costing for infrastructural areas is more expensive than the Scott Wilson costing mainly due to the waste collection, handling and disposal that has been included in the GAA costs.
7.2.5.2 Mining areas	
■ Opencast reclamation, including final voids and ramps; ■ Excavations;	■ The Scott Wilson costing allowed for reclamation of 194 ha of overburden and spoils at a rate of USD 9193 per hectare. Since the site has no open pit mining

Category with sub-categories	Evaluation
■ Sealing of shafts, adits and inclines; ■ Shaping of stockpiles, waste rock and overburden dumps; ■ Vegetation of stockpiles, waste rock and overburden dumps; ■ Reclamation of processing waste deposits and evaporation ponds; and ■ Reclamation of subsided areas.	these quantities and associated costs are unclear; ■ The GAA costing allowed for shaping and vegetation of stockpiles footprint areas, assuming that the stockpiled material will be processed before decommissioning; ■ The GAA costs allows for the sealing of all the incline shaft and the infilling of the associated excavation. The Scott Wilson costs make a nominal allowance for this. ■ The GAA costs make allowance for the reclamation of the slag dumps by providing for limited re-profiling and landscaping of the dumps to be more natural in appearance. During the meeting held on 20 January 2011, Scott Wilson indicated that their costs does not address this aspect; ■ The Scott Wilson costs allows for the reclamation of 50 ha of subsided area at a rate of USD 7697 per hectare. ■ GAA costs allow for the reclamation of all generally disturbed areas and the clean-up of possible contamination over these areas; and ■ The GAA costing is slightly less expensive, presumably due to certain aspects having been addressed under other sections of the costing and differences in the reclamation approach.
7.2.5.3 General surface reclamation	
■ Shaping of disturbed areas; and ■ Vegetation of disturbed areas.	■ The Scott Wilson costs allow for the general surface reclamation of 120 ha at a rate of USD 7282 per hectare, whereas the GAA costs allow for the reclamation (shaping and vegetation) of approximately 630 ha which excludes the TSFs; ■ The GAA costs allow for clean-up of contaminated soils over 20 percent of the

Category with sub-categories	Evaluation
	infrastructural area, which appears not to be included in the Scott Wilson costs; ■ In addition, the GAA costs allow for the removal and disposal of 500m³ of fugitive concrete; and ■ The GAA cost is more expensive, which is may be attributed to the much larger area of generally disturbed land that was included for rehabilitation as well as possible differences in reclamation assumptions.
7.2.5.4 Water management	
■ Reinstatement of drainage lines; and ■ River reclamation.	■ The Scott Wilson costs appear not to have provided for the reinstatement of drainage lines or the reclamation of contaminated rivers and stream; ■ The GAA cost allows for the reclamation of about 9.5 ha of riverbanks; ■ The GAA cost allows for the reinstatement of the drainage lines over the full reclaimed areas; thus ■ This item cannot be compared due to the category being omitted from the Scott Wilson costs.
7.2.5.5 Post closure aspects	
■ Surface water quality monitoring; ■ Groundwater quality monitoring; ■ Reclamation monitoring; ■ Care and maintenance; and	■ The Scott Wilson costs allows for 2 to 3 years of maintenance and after care over 700 ha, thus a rate of USD 969.15 per hectare; ■ The GAA costing allows for surface water, groundwater and reclamation monitoring, as well as care and maintenance for a minimum period of 3 years over an area of 1341.38 hectares; ■ Notwithstanding the differences in approach, the overall costs for this category

Category with sub-categories	Evaluation
■ Ongoing water treatment.	are relatively similar; and ■ GAA has not made any allowance for ongoing water treatment. (There is no mine drainage at Mufulira)
7.2.5.6 Additional allowances	
■ Preliminaries and general; and ■ Contingencies.	Both the Scott Wilson and GAA costs allow 6 percent for preliminaries and general and 10 percent for contingencies.

7.2.6 Matters Requiring Further Attention

The following matters that potentially require attention in future closure cost updates have been identified:

- There is an ongoing management of waste water from the mine workings and water management may require further attention from time to time.
- Compilation of proper inventories of infrastructure and mining activities within the respective battery limits and obtain sign-off by the mine on these;
- Confirmation and documentation of battery limits for the closure costing and providing the motivations/reasons for the inclusion and exclusion of areas;
- On-site quantification and measurement of those closure cost components with uncertainty with respect to the closure measures required and/or which are not adequately addressed in the indicative closure costs;
- The possibility that significant impact by mining related spillages on the local stream/river systems may exist and needs to be confirmed by on-site assessment of potentially affected areas by a suitably qualified specialist. In the event that contamination that can safely be removed without causing excessive damage to the streambeds is identified, allowance has to be made for at least the de-silting and re-instatement of contaminated stream beds and banks. Other measures may also be required in order; to allow the natural aquatic ecosystems to as far as possible to return. This could have a notable cost and has been excluded from this cost estimate, mainly due to uncertainty on responsibility for this environmental liability and the fact that such areas may not be detected from aerial imagery.

7.2.7 Conclusion

The findings as reflected in this report have primarily been based on the interpretation of Google Earth images and a number of maps of the respective mine sites. Clarification on a number of issues was obtained at the review meeting held with Mopani on 20 January 2011. Where the required information was not available, estimates were made based on experience. Unit rates for the purpose of the review were obtained from GAAs' existing data base and/or from demolition practitioners. Where required, these were adapted to reflect site-specific conditions.

The review of the existing closure costs, as well as recommendations in this regard, has been completed from a risk-averse perspective and mainly errs on the side of caution. This approach allows for the costs to be refined as appropriate information becomes available, as opposed to possible under-estimation and associated provision that could lead to liability shortfalls.

This review concludes that the closure costs provided by Scott Wilson are too low, even only addressing the most limited decommissioning and restoration requirements. It is recommended that a fair and reasonable financial provision of at least **USD 26 million** be made.

8.0 ENVIRONMENTAL, HEALTH AND SAFETY

8.1 Nkana

8.1.1 Terms of Reference

The key objective of this audit was to identify major environmental or social impacts and stakeholder concerns associated with Nkana Mine operations.

Specifically this involved assessing the following items:

- The scope and content of the Environmental and Social Impact Assessment ("ESIA") and Environmental Management Programme ("EMP").
- The status of environmental authorisations.

- Compliance with permit and statutory conditions.
- Compliance with the Equator Principles where sufficient site information was available to do so.
- Major environmental and social risks and liabilities, specifically in regards mine closure.

The geographical extent of the audit was limited to mining-related facilities and activities in the Nkana Mine Concession Area.

8.1.2 The Nkana Mine Concession Area

8.1.2.1 Mining infrastructure

Nkana Mine operates four shafts which supply the concentrator with ore, namely:

- SOB,
- Central,
- Mindola Sub-vertical; and
- Mindola North.

The following open pits are currently active and supply ore to the Nkana Leach Plant:

- Mindola North – an existing operation exposing ore in the centre and being extended towards the north;
- Area A – a shallow pit extending to a depth of approximately 30m and is situated south of Mindola North. Laterally the pit is being extended towards the existing Mindola North pit.
- Area E – Extension work being carried out at the end of the old pit.
- Area D open pit, mining in progress.
- Area J development of the open pit in progress and mining of the ore to commence before year end.

A review process is currently being undertaken for proposed open pit operations in Area K and Nose.

Leach operations are carried out in old mined out upper levels at Central Shaft and the leach solution is pumped to a solvent extraction plant on surface. This operation is now on care and maintenance, which was triggered by depressed copper prices on the world market. It is planned to resume operations before year end.

Mine dewatering water is pumped to surface at both Central Shaft and Mindola Sub-vertical Shaft at a daily rate of approximately 37 000m^3 and 45 000m^3 respectively. The bulk of the water from Central Shaft is used as process water by the metallurgical plants (Cobalt Plant, Concentrator and Nkana Leach Plants). Excess water is combined with plant site effluent and discharged into Uchi Stream under licence. Water from Mindola Sub-vertical Shaft is discharged into Mindola Stream under licence.

8.1.2.2 Waste Rock Dumps

There are currently three Waste Rock Dumps (“WRDs”) and three overburden dumps in operation at Nkana Mine, namely:

- WRD 14 - This is the depository for waste rock from Mindola SV and Mindola North Shafts. A portion of the mineralised waste rock is currently being reclaimed for processing through the concentrator;
- WRD 28 – for waste rock from Central Shaft, a significant portion of which has been reclaimed for use as construction aggregate;

- WRD 42 – for waste rock from the SOB Shaft, a significant portion of which has been reclaimed for use as construction aggregate;
- Overburden Dump 63 – For overburden material from Mindola open pit;
- Overburden dump 70 – for overburden material from Area D open pit; and
- Overburden Dump 53C - holds overburden material from Area E open pit extension.

Overburden material from Area A pit is dumped into the mined out section of Mindola Open Pit as backfill. Top soil from Areas A, D and J is stockpiled onto temporary dumps for use in post closure rehabilitation of the respective pits areas.

8.1.2.3 Tailings storage facilities

There are currently four TSFs at Nkana Mine, namely:

- TSF 15A - Tailings from the concentrator are combined with leach residues from leach operations and deposited via three delivery pipelines into TD15A by either cycloning to build dam walls or by open ending onto the dam beach. TD15A contains a cumulative tailings mass, since its inception of 128,730,519 tonnes as at November 2010.
- TSF 15 - The dam is decommissioned and no deposition has taken place since 1978. The dam requires constant monitoring by security personnel to prevent illegal removal of crushed stone from the retaining wall across the Mindola Stream on the eastern side of the dam. Backfilling of pits left by illegal crushed stone excavators and closing of some access routes is carried out regularly. The total tonnage in the dam is approximately 33,930,000 tonnes.
- TSF 52 - The dam is decommissioned and no deposition has taken place since 2002 when the dump was last used as an emergency depository. The dam is considered a resource for copper. The total tonnage in the dump is approximately 6,604,000 tonnes. A project to process the tailings is being implemented.
- TSF 68 - The dam is decommissioned and no deposition has taken place since 1986. The dam is considered a cobalt resource as most of the material on it was generated from processing of smelter slag by the previous owners of Nkana Mine. The total tonnage in the dump is approximately 549,000 tonnes.

8.1.2.4 Processing facilities

Mopani operates the following three metallurgical processing facilities at Nkana:

- The concentrator treats underground ore to produce copper and cobalt concentrates. The copper concentrate is trucked to Mufulira Smelter and the Cobalt concentrate is routed to the Cobalt Plant for processing.
- The Nkana Cobalt Plant produces cobalt metal via a Roaster, Leach and Electrowin metallurgical process. The cobalt sulphide feedstock to the plant has a copper / cobalt ratio of 4:1. In order to produce cobalt metal the copper is initially stripped as a by-product from the cobalt bearing process solution by EW. To improve the efficiency of the copper and cobalt recoveries a solvent extraction plant was added to the Cobalt Plant in 2007. This enabled both export grade cobalt and copper to be produced, as previously the copper produced at the plant was of low quality and had to be transported to the Mufulira Smelter for smelting and refining.
- The Nkana Leach Plant processes copper oxide ores from the open pits, with the leach solution routed to the Cobalt Plant for processing together with the Cobalt Plant's own copper/cobalt solutions and Central Shafts' leach solutions.

The leach residues from both the Cobalt Plant and Nkana Leach Plant operations are pumped to the concentrator for disposal into TSF15A, together with concentrator tailings. Wastewater from the metallurgical plants is mainly recycled before being discharged. However some of the combined process wastewater is discharged, under license, into North Uchi drain through the concentrator tailings thickener facility or a portion pumped to TSF15A whenever feasible.

8.1.2.5 Additional site infrastructure

The major ancillary and support facilities comprise of:

- Engineering workshops;
- Analytical laboratory;
- Power and water supply systems;
- Rolling stock to support the mine operations;
- Water treatment plant for production of potable water for plant area use;
- A mine hospital;
- Satellite clinics; and
- Primary and Secondary Schools.

8.1.3 Information Sources Reviewed

The information sources on which the audit was based included:

- Site documentation provided to GAA;
- Interviews which GAA conducted with site personnel on 6th December 2010; and
- GAA observations during the site visit of 6th December 2010.

These sources are discussed further below.

8.1.3.1 Site documentation

Site documents which provided background to the Nkana Mine audit included:

- Nkana Mine Bi-Annual Environmental Reports compiled by Mopani SHE Department between January-June 2008 until January-June 2010.
- Various Stakeholder Complaints Reports including Mine Responses.
- Permits and Licences (94 in total) issued to Nkana Mine by the ECZ
- Nkana Mine Emergency Preparedness and Response Plan compiled by Scott Wilson Piésold Zambia Limited Ltd. (January 2006).
- Nkana Mine Site Updated Global Environmental Management Plan compiled by Scott Wilson Ltd (June 2009).
- Nkana Mine Environmental Impact Statement compiled by SRK (July 2003) and including:
  - Volume 1: Assessment of Impacts; and
  - Volume 2: Environmental Management Plan
- The following monitoring data and reports for Nkana Mine:

- Acid monitoring data for the Cu and Co tank houses, leach plant and Central Shaft leach;
- Gravimetric (dustfall) data collected on 6th August 2010for Mindola SV Shaft Main Ore Tip;
- Noise Survey Report for Area "K and Nose" Open Pit Ore Mining compiled by Mopani SHE Department in November 2010; and
- Daily water quality monitoring reports (collated monthly) for 2010.

- ECZ Environmental Audit Follow-up Report and Letter dated 9th December 2009 (being follow-up on non-compliances recorded in the ECZ environmental audit of Nkana Mine conducted in 2007).
- Procedure for the Management of Hazardous Substances at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO012 Rev 1, dated 18th January 2005.
- Procedure for the Management of Wastes at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO016 Rev 1, dated 18th April 2005.

8.1.3.2 Interviews with site personnel

The following site personnel participated in the audit interviews and site visit:

- Mine Technical Manager;
- Environmental Superintendent (Nkana and Mufulira Mines);
- Security Manager;
- Manager Corporate Affairs; and
- Manager Safety, Health and Environment.

8.1.3.3 Site areas visited

A site visit of the Nkana Mine Concession was conducted on 6th December 2010. Emphasis was placed on visiting specific areas and facilities of the concession which were identified in the site documentation and/or site interviews as presenting potentially significant environmental liabilities of concern.

8.1.4 Limitations of the Audit

This report is based on a high level overview of the Nkana Mine operations by experienced GAA Associates staff. The review involved a day visit to the mine with the time divided between travel, the identification and review of available documents, discussion with key personnel and a brief visit to areas of greatest concern on site. The review therefore focuses only on critical environmental and social issues, so as to identify risks that could be major liabilities. Wherever possible, existing documentation has been used as a basis for conclusions drawn.

8.1.5 Results of the Audit

The results of the environmental audit of Nkana operations and activities are presented in the subsections that follow.

8.1.5.1 Compliance against statutory conditions

The ECZ conducts periodic licensing inspections of the mine. Typically, these are done annually. The 2009 inspection included a review of corrective actions taken by Mopani to address major findings of the 2007 and 2008 inspections. At the time of the site visit, no inspections had occurred for 2010. Subsequently we were advised that ECZ site inspections were to take place in late December 2010, the outcome of which would then be used to assess 2011 license applications. The ECZ report on their annual inspection carried out in December has since been received (report dated 7th February 2011 reference No. ECZ/FAC/103/12/M/5).

There were no major adverse comments. ECZ letter of 3rd February 2011 confirmed that Mopani had been issued with all the 2011, permits applied for.

The environmental license conditions for Nkana Mine are fairly extensive and include eight specific requirements, namely:

- Importation, transportation and storage of chemicals;
- Management of mining waste (tailings, waste rock and overburden);
- Management of domestic / industrial waste (generation, storage and transportation);
- Transportation of tailings;
- Management of hazardous waste (used oil, used fluorescent tubes, used batteries and used oil filters);
- Healthcare waste management;
- Air emissions; and
- Discharge of effluent

A review of the ECZ inspection report for 2009 showed that most of the findings had been addressed. Scott Wilson Ltd (July 2010) carried out an audit in respect of Environmental Protection Fund of Nkana Mine performance against EMP commitments and ECZ approval conditions. A review of the report showed that the mine was compliant with the vast majority of its commitments. The areas of non compliance in the Scott Wilson Ltd audit which may represent risk to Nkana Mine operations and to meeting Equator Principles and IFC include;

- At times some exceedences of permitted effluent discharge limits for some parameters at two of the six lic enced outlets
- Exceedences for SO_2 emissions limits at the Cobalt Plant Roaster on account of the Acid Plant being shutdown.

8.1.5.2 Impact of effluent discharges on river quality

The industrial water requirement at Nkana Mine is met primarily through underground dewatering via the Central Shaft, although there is abstraction of water from the Kafue River to meet hardness-sensitive process requirements. Excess water from Central Shaft and water from Mindola SV Shaft are discharged to the Uchi and Mindolo streams respectively.

Table 31 (after Scott Wilson, 2010) indicates the location of surface water discharges from the Nkana Mine to local streams, together with an indication of whether effluent quality monitoring data supports compliance with regulatory limits prescribed in the Third Schedule to the Water Pollution Control (Effluent and Waste Water) Regulations (S172 of 1993).

- The effluent discharge from the acid plant and Cobalt Plant areas to the North Uchi Stream represents a risk to Nkana Mine in terms of possible contamination of both the North Uchi stream and the receiving Kafue River. It would appear that a significant component of this risk could be removed by ensuring that tailings thickener overflow pH is at least 8.5 and that the Cobalt Plant concentrates is stored under cover prior to slurrying and roasting.
- As mitigation a dedicated lime plant for the Nkana Leach Plant has been installed to ensure effective neutralisation of leach residue disposed through concentrator tailings thickener (“TT”). It is envisaged that this will ensure that TT overflow wastewater into North Uchi is in compliance as regards dissolved copper, cobalt and manganese.
- As mitigation spilled tailings have been cleaned and deposited in the operating tailings dump (TD15A).

Table 31: Summary of surface water discharges at Nkana Mine

Principal water source	Receiving water resource	Monitoring observations
North open pit, North Shaft, Mindola SV Shaft	Mindola Stream	Generally compliant with limits
Central Shaft, concentrator	Frikers Lake outlet to Luanshimba Stream	Compliant with limits
Acid Plant, Cobalt Plant	Harrison Street Drain / North Uchi Stream to Kafue River	Non compliant on numerous occasions. Main exceedences are elevated concentrations of Cu and Co.
Leach Plant	Kitwe Stream	Generally compliant with limits
TD15	Ichimpe Stream	Compliant with limits
TD15A	Fikondo Stream	Compliant with limits

8.1.5.3 Tailings pipeline spillages

Time limitations prevented GAA from identifying areas of tailings spillage from the 15km tailings pipeline, booster pump station and/or tailings bleed points. These spillages have, however, been previously identified as a risk area by ECZ in terms of the siltation of the two adjacent streams. Discharge of tailings supernatant water was observed at the northwest corner of the TSF into the Fikondo Stream and silt loads appeared to be small.

8.1.5.4 Impact of SO_2 emissions from the Cobalt Plant

The venting of flue gas from the Cobalt Plant direct to the atmosphere rather than routing the gas to the acid plant, due to low sulphur feed to the roaster, results in SO_2 emissions consistently exceeding the long term limit of 1 000 mg/Nm^3. This represents a significant risk to Nkana Mine operations, particularly as the deadline issued by ECZ to resolve this problem has passed.

Table 32: Compliance of Nkana Mine operations with Equator Principles and IFC requirements

Equator Principle	Requirement	Compliance Rating	Reasons for Compliance /Non Compliances
Principle 1: Review and Categorisation	Projects are categorised on the basis of the magnitude of potential impacts and risks	Compliant	Nkana is an operating mine. The environmental license and permit conditions for the mine are based upon the EIA prepared by SRK (2003). For the purposes of this EIA, the mine was correctly classified as a Category A project and the assessment was prepared accordingly.
Principle 2: Social and Environmental Assessment	Social and Environmental Assessment Process required to address impacts and risks of construction, operation and closure. Mitigation required which is appropriate and implementable	Compliant	Category A EIA and various EMPs completed, including the most recent updated Global EMP by Scott Wilson, 2009. A Social Management Plan was prepared by the Copperbelt University, Department of Urban and Regional Studies, in 2007, providing a detailed management framework as a basis for promoting sustainable development and poverty alleviation. The updated EMP and SMP provide an appropriate foundation on which to base the company's interaction with communities and commitments to sustainable development practices.
Principle 3: Applicable Social and Environmental Standards	IFC PS 1: Social and Environmental Management System	Non compliant	EMS in progress but not complete and implemented. The company has significant capacity for social impact management under the Corporate Affairs Manager.
	IFC PS 2: Labour and worker conditions	-	Labour practices are dealt with in the Employment, Retirement and Retrenchment Action Plan. The plan deals with: ■ Retrenchment benefits and counselling (requirements for counselling prior to retrenchment) ■ Multi skilling and training (training in order to assist retrenched and/or retired workers to remain economically active)(■ Local employment (local employment strategy including an 'expatriate replacement strategy' and a plan which ensures the development of its own workforce as well as contractor labour) Specific performance criteria are set in order to monitor effectiveness of the plan. These include number of people employed by Mufulira, number of people employed in different categories, number of expatriates replaced by Zambian labour, implementation of a Human Resources Development Plan.
	IFC PS3: General requirements	N/A	-N/A
	IFC PS 4: Community Health, Safety and Security – Community Health and Safety	Compliant	The Nkana SMP includes a Health and Welfare Action Plan. The plan provides for company involvement in combating HIV/AIDS among workers and in surrounding communities. Provision is made for verifying that contractors employed by the company comply with its HIV/AIDS policy.

			Other community health management commitments are made in the Scott Wilson (2009) EMP. These are mainly related to malaria interventions.
	IFC PS 4: Community Health, Safety and Security – Security	-Compliant	Access control in place
	IFC PS 5: Land Acquisition and Involuntary Resettlement – general requirements	Compliant	The Nkana SMP includes a Land Use and Settlement Action Plan. The plan has a number of components: ■ Demarcation and communication of boundaries of mine surface area to communities and ongoing communication to permit safe use of designated areas within the MSA for community use ■ Limitation of the growth of informal settlements around the mine ■ Protection of communities from mining hazards (including requirements for signage, access control, education, awareness raising, patrols etc) ■ Management of seasonal cultivation in the MSA through a permitting system ■ Community-based natural resource management ("CBNRM") with settlements and current land users on the MSA to assist in the conservation of woodlands. The programme is conducted in cooperation with the Government's Forestry Research Division and includes awareness raising, networking and patrols. ■ Management of use of MSA water bodies including monitoring of use and signage warning people about hazards of fishing in potentially contaminated areas (e.g.: tailings dams) ■ Maintenance and demarcation of access roads in the MSA ■ Sustainable land use management. This includes networking with DACO and FRD regarding training and awareness programmes to develop A monitoring plan is set out which includes tracking of a large number of performance indicators
	IFC PS 7: Protection of Indigenous Peoples	N/A	■ Indigenous peoples are not affected by the mining activities
	IFC PS 8: Cultural Heritage – protection of cultural heritage in project design and execution	Compliant	■ Heritage assessment has not been undertaken for the proposed new development sites such as the Far West Tailings Dam

	IFC PS 8: Cultural Heritage – project's use of cultural heritage	Compliant	■ The mine does not use cultural heritage resources
Principle 4: Action Plan and Management System	Environmental and Social Action Plan	Compliant	The SMP for the mine includes a series of Action Plans that set out the specifics of required social management activities, together with roles and responsibilities, time frames and monitoring and evaluation schedules. The Action Plans are as follows: ■ Employment (Medical Discharge, Retirement and Retrenchment) Action Plan ■ Local Business Development Plan ■ Health and Welfare Plan ■ Physical Infrastructure Plan ■ Land Use and Settlement Plan ■ Community Management Support Plan ■ Disclosure and Consultation Plan
Principle 5: Consultation and Disclosure	Ongoing consultation with affected communities in a structured and appropriate manner	Compliant	■ The Nkana SMP includes a Disclosure and Consultation Action Plan. The objective of the plan is to develop good relationships between Nkana mine and the public, to ensure transparency between the mine and stakeholders.
Principle 6: Grievance Mechanism	Formal grievance mechanism required as part of the management system	Compliant	■ A formal grievance procedure is in place
Principle 7: Independent Review	Independent social or environmental expert not directly associated with the borrower to review the assessment, consultation process and Equator Principle compliance	Compliant	■ Independent reviews/audits are undertaken. Recent audits include: JA Consultants (2008); MCM (2009) Scott Wilson (2010);
Principle 8: Covenants	The following covenants to be included in financing documentation: The borrower will: • Comply with all host country social and environmental laws, regulations and	Potentially Compliant	If the Environmental Management Plan and Social Management Plan are fully implemented, the project appears to be capable of meeting Equator Principle requirements. Environmental authorization is in place, with a permit issued by the Environmental Council of Zambia in April 2004. All other environmental and social permits appear to be in place and are meticulously documented in Table 3-3 of

	permits; • Comply with the action plan during construction and operation in all material respects; • Provide reports (not less than annually) to document compliance with laws, regulations and permits; and • Decommission the facilities in accordance with an agreed decommissioning plan		the Nkana updated EMP (Scott Wilson, 2009). The EMP also sets out all of the environmental requirements that are conditions of approval of the Environmental Council of Zambia, together with the management action necessary to meet each condition and whether it was once off or ongoing. Updating of the EMP is being done.
Principle 9: Independent Monitoring and Reporting	An idependent, experienced external expert to verify monitoring information on a regular basis	Compliant	■ Third party audits of EMP carried out by approved independent auditors (African Mining Consultants in 2009 & Scott Wilson in 2010). Compliance could be improved via the implementation of an EMS.

8.1.6 Nkana key social aspects and risks

With reference to compliance with the social elements of the plans described in Table 32, the following comments are made, based on the brief discussions held with Nkana staff and the recent audit by Scott Wilson (2009):

- **Social Assessment (Equator Principle 2):** The Social Management Plan is not audited and while some of the components of the plan are included in the updated EMP, there are specific monitoring requirements that are not. The SMP needs to be included in future audits or fully incorporated within the EMP in the next annual update.

- **Social / Environmental permits (Equator Principle 2):** Mopani appears to be fully compliant with respect to permitting, with a comprehensive and updated list of permits available for review (sixty seven permits listed in the recent Scott Wilson, 2010 audit).

- **Community Health Safety and Security (Equator Principle 3, IFC PS 4):** Mopani operates one hospital and three clinics in the former mine townships, as well as four plant site clinics at a cost of around USD 8 mill per annum. Clinic services are available to all members of staff and their families and to children under five at no charge and to other members of the surrounding communities for a fee.

  The company supports an on-going malaria control programme that extends beyond the protection of its own employees into surrounding communities. It involves Integrated Vector Management ("IVM"), which is a comprehensive malaria programme that targets mosquitoes at every stage of their life cycle. The company coordinates its' malaria programme with Government and NGO initiatives. It is company policy that all malaria complaints are verified with blood tests, and malaria monitoring and reporting is conducted. The company's malarial control commitments cost an average of around USD 1 million per year. Malarial incidence among patients at the company's medical facilities has dropped to around 30 cases/ 1000 treated in 2010 (Zambian National average is 250 cases/ 1000 treated). The data were obtained from Mopani clinics that treat patients from within a catchment of 60 000 people (Kitwe).

  The company also implements a comprehensive HIV AIDS Management Programme. This involves a full range of initiatives from prevention through treatment, care and support. An HIV AIDS policy has been submitted to Government. An extensive training program has been implemented which trains trainers, peer educators, palliative care providers and psychosocial councilors in the workplace and the community. Work includes partnering with NGOs such as the Catholic Relief Services and Comprehensive HIV AIDS Management Programme ("CHAMP") who have experience in this field.

  Regarding community safety, there has been no loss of life in surrounding communities as a direct result of mining and mining related activities. One significant incident has arisen since privatisation in which a pump failure caused an acid leak that contaminated the company's supply of water to the community. This resulted in hospitalization and treatment of a number of people. No-one was seriously injured although the incident necessitated a considerable amount of work to rebuild community trust.

  A company procedure is in place to manage emergencies, supported by professional risk assessments.

- **Resettlement (Equator Principle 3, IFC PS 5):** No resettlement has been necessary since the start of Mopani operations. Any resettlement that is to be done in the future will be planned and implemented with the assistance of experts, according to international standards. Regarding the management of existing settlements, a significant number of compliance requirements are set out in the SMP, together with specific performance standards for monitoring. These are not referred to in detail in either the SRK (2007) audit or the recent Scott Wilson (2010) audit and no information has been provided to the reviewers to demonstrate whether they are being systematically implemented.

- **Corporate Social Responsibility (Equator Principles 3 and 4):** An appropriate organisational structure and staffing for social impact management on the mine has been set up under the Manager Corporate Affairs. The company is involved in a number of programmes to encourage and facilitate local business development.

- **Consultation and Disclosure** (**Equator Principle 5**): A comprehensive ongoing process is implemented by the company. Community liaison officers have been appointed for each mine site and are responsible for liaison with townships and for providing feedback, requests and grievances from the community to the Corporate Affairs Manager. Feedback forms are at various convenient locations for stakeholders to provide the company with comment. These are collected regularly and entered into a central database.

- **Community Grievances (Equator Principle 6):** The EMP and SMP are being implemented in the context of the social issues arising from the privatisation of the mine, resulting in many services previously provided by ZCCM no longer being available or not being available without charge to members of the local communities not employed by the mine. The Manager Corporate Affairs is aware that there are legacy issues associated with the privatization of certain government services, such as health, housing and education. The community may expect that in future the mine will supply these services. The community expectations need to be appropriately managed.

- **Overall compliance (social):** Compliance with the EMP has been audited several times in the past 5 years. Most recently, the Scott Wilson (2010) audit included a review of the findings of the previous audits and is consequently the most current independent view of compliance with the EMP. It may be seen that Mopani's performance is rated highly, with the company achieving a 100% compliance rating for all of the listed social items.

  The above evidence provides the assurance that Mopani is complying with its commitment to manage social issues and promote sustainable development within the limits that could reasonably be expected of a private company. The management of community expectations driven by the legacy issues referred to above is a critical factor affecting the long term relationship between the mine and the community. The view of the Manager Corporate Affairs is that the mine, through its social investment programme, will gradually improve its relationship with local communities.

8.1.7 Health and Safety

The organisational structure for Mopani provides that the Chief Executive Officer ("CEO") bears the overall responsibility for the management of Safety, Health and Environmental ("SHE") matters.

Operating responsibility lies with the respective chief officers and their respective line managers, superintendents and heads of departments as the case may be. In this the principal guiding policy is the SHE Policy (Pol 002).

The operationalisation of the policy is coordinated by the SHE Department headed by the SHE Manager.

The primary functions for the SHE Department can be summarised to include the following;

- Provide expert advice and guidance To various departments as regards acceptable/ appropriate safety, occupational hygiene and environmentally sound practices;

- Ensure compliance with the relevant SHE legislation and in their absence use international best practices as the standard;

- Ensure that new projects are developed in accordance with legislative provisions o in their absence international best practices;

- Provide in-house training in requisite SHE guidelines in respect of Mopani operations to new employees prior to their deployment to their work departments; and

- Drive the continuous improvement programme on SHE matters such as those in respect to the requirements of ISO14001 and OHSAS18001 standards;

  The health and safety statistics for Nkana are set out below, the results suggest a reduction in the number of Lost Time Injuries ("LTI") and fatalities between 2008 to 2010.

Table 33: Nkana Injury Trends: 2008 – 2010

	2008	2009	2010
LTI	175	106	97
NLTI	119	75	65
Fatalities	1	3	4

8.1.8 Industrial Relations

There have been no labour disputes including strikes and work stoppages since 2008. There are two recognised labour unions organised on the mine: Mine Workers Union of Zambia ("MUZ") and the National Union of Mine and Allied Workers ("NUMAW"). In general annual wage and condition of service negotiations proceed to conclusion without incident.

8.1.9 Concluding Statements

After reviewing of existing site documentation, conducting brief interview of site personnel and visiting areas of the site of known potential environmental impact, the following conclusions were reached from the audit of environmental and social management at Nkana Mine:

- The environmental performance of Nkana Mine is substantively compliant with its environmental licence and EMP conditions;
- Environmental impacts which generally exceed licence conditions and pose a risk to Nkana Mine operation in terms of compliance to statutory requirements and the Equator Principles include:
  - Effluent discharge to the environment, particularly from the Cobalt Plant (below pH 8.5), high Cu and Co concentrations) to the North Uchi Stream which drains to the Kafue River. It would appear that a significant component of this risk could be removed by ensuring that tailings thickener overflow pH is at least 8.5 and that the Cobalt Plant concentrates is stored under cover prior to slurrying and roasting;
  - Spillage of tailings from the tailings pipeline, booster pump station and/or tailings bleed points to the adjacent two streams; and
  - Venting of flue gas from the Cobalt Plant direct to the atmosphere rather than routing them to the acid plant. This results in SO_2 emissions consistently exceeding the long term limit of 1 000 mg/Nm^3.
- Mopani is complying with its commitment to manage social issues and promote sustainable development within the limits that could reasonably be expected of a private company.
- The management of community expectations is a critical factor affecting the long term relationship between the mine and the community.

8.1.10 References

- ECZ (2009). ECZ Environmental Audit Follow-up Report and Letter dated 9th December 2009 (being follow-up on non-compliances recorded in the ECZ environmental audit of Nkana Mine conducted in 2007).
- Mopani Copper Mine (2005a). Procedure for the Management of Hazardous Substances at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO012 Rev 1, dated 18th January 2005.
- Mopani Copper Mine (2005b). Procedure for the Management of Wastes at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO016 Rev 1, dated 18th April 2005.

- Mopani SHE Department, (2008 to 2010). Nkana Mine Bi-Annual Environmental Reports compiled between January-June 2008 until January-June 2010.
- Scott Wilson Piésold Zambia Limited Ltd. (January 2006). Nkana Mine Emergency Preparedness and Response Plan.
- Scott Wilson Ltd (June 2009). Nkana Mine Site Updated Global Environmental Management Plan.
- SRK (July 2003). Nkana Mine Environmental Impact Statement.
- Baseline studies (2001) by SRK which was also used in determining which mine assets were transferred to Mopani and which remained with the previous owners as historical liabilities.
- TD15a Slope Stability Analysis Report by Scott Wilson Piesold Zambia Limited
- Emergency Preparedness and Response Plan 2006 for TD15a, by Scott Wilson Piesold Zambia Limited.
- TD15a Operating and Maintenance Manual 2006 by Scott Wilson Piesold Zambia Limited
- Third Party Audit Reports for the period 2007, 2008, 2009 and 2010.

8.2 Mufulira

8.2.1 Terms of Reference

The key objective of this audit was to identify major environmental or social impacts and stakeholder concerns associated with Mufulira Mine operations.

Specifically this involved assessing the following items:

- The scope and content of the ESIA and EMP.
- The status of environmental authorisations.
- Compliance with permit and statutory conditions.
- Compliance with the Equator Principles where sufficient site information was available to do so.
- Major environmental and social risks and liabilities, specifically in regards mine closure.

The geographical extent of the audit was limited to mining-related facilities and activities in the Mufulira Mine Concession Area.

8.2.2 Mufulira Mine Facilities

Mining infrastructure in the Mufulira Mine concession consists of:

- Central Mine;
- Mufulira East Mine;
- Mufulira West Mine; and
- Leach mining.

Processing facilities in the Mufulira Mine concession include:

- Mufulira concentrator;
- Mufulira Smelter;

- Mufulira refinery;
- Three SX plants;
- Leach plant;
- Mufulira East heap leach plant (decommissioned); and
- Mufulira West heap leach.

Mine residue deposits in the Mufulira Mine concession include:

- WRD 11;
- WRD 13 (considered as an ore resource for the Mufulira West heap leach);
- WRD 14 (being reworked by a private contractor for construction aggregate);
- WRD 17 (the current main active disposal site of waste rock from conventional underground operations);
- Slag dump 1 (nearing capacity and used for emergency dumping only);
- Slag dump 2 (currently operational);
- Tailings Dump 3 (TD 3) (no deposition currently);
- TD 4 and TD 5 (currently inactive);
- TD 11 (currently the only active tailings dump at Mufulira)

Support infrastructure associated with mining and processing operations at Mufulira includes:

- Workshops;
- Central stores;
- Laboratory;
- Salvage yard; and
- Hospital and satellite clinics within the plant area and in the local township.

8.2.3 Information Sources Reviewed

The information sources on which the audit was based included:

- Site documentation provided to GAA;
- Interviews with site personnel on 7th December 2010; and
- GAA observations during the site visit of 7th December 2010.

These sources are discussed further below.

8.2.3.1 Site documentation

Site documents which provided background to the Mufulira Mine audit included:

- Mufulira Mine Environmental Impact Statement compiled by SRK (July 2003) and including:
  - Volume 1: Assessment of Impacts; and

- Volume 2: Environmental Management Plan.

- Mufulira Mine Site Updated Global Environmental Management Plan compiled by Scott Wilson Ltd (June 2009).
- Permits and Licences issued to Mufulira Mine by the ECZ.

8.2.3.2 Interviews with site personnel

The following site personnel participated in the audit interviews and site visit:

- Mine Technical Manager;
- Environmental Superintendent (Nkana and Mufulira Mines);
- Chief Processing Officer;
- Manager Safety, Health and Environment;
- Security Manager; and
- Manager Corporate Affairs.

8.2.3.3 Site areas visited

A site visit of the Mufulira Mine Concession was conducted on 7th December 2010. Emphasis was placed on visiting specific areas and facilities of the concession which were identified in the site documentation and/or site interviews as presenting potentially significant environmental liabilities of concern.

8.2.4 Limitations of the Audit

This report is based on a high level overview of the Mufulira Mine operations by GAA Associates staff. The review involved a one day visit to the mine, with the time divided between travel, the identification and review of available documents, discussion with key personnel and a brief visit to areas of greatest concern on site. The review therefore focuses only on critical environmental and social issues, so as to identify risks that could be major liabilities. Wherever possible, existing documentation has been used as a basis for conclusions drawn.

8.2.5 Results of the Audit

The results of the environmental audit of Mufulira operations and activities are presented in the subsections that follow:

8.2.5.1 Compliance to license conditions

The Environmental Council of Zambia conducts periodic licensing inspections of the mine. Typically, these are done annually. The 2010 inspections are currently (December 2010) in progress the findings will be used in issuing 2011 licenses. The 2009 inspection included a review of corrective actions taken by Mopani to address major findings of the 2007 and 2008 inspections.

The environmental license conditions for Mufulira Mine are fairly extensive and include eight specific requirements, namely:

- Importation, transportation and storage of chemicals;
- Management of mining waste (tailings, waste rock and slag (overburden)).
- Management of domestic / industrial waste (generation, storage and transportation);
- Transportation of tailings;
- Management of hazardous waste (used oil, used fluorescent tubes, used batteries and used oil filters);

- Healthcare waste management;
- Air emissions; and
- Discharge of effluent

The risk areas at the two sites should be in respect of effluent discharges which at some outlets are at time outside the limits in some parameters and SO_2 emissions at both mine sites. At Nkana SO_2 emissions are due to poor quality roaster offgas which cannot be treated in the existing acid plant. At Mufulira capture of SO_2 is currently at 51% (2010 average) against a target of 50%, and capture is expected to increase to 97% when phase 3 of the Smelter Upgrade Project is completed in 2015. This project will incorporate installation of a second Acid Plant.

- SO_2 exceed the long term statutory limit;
- Effluent discharge quality exceedance of the limit, particularly in regards Mn concentrations in TD 11 discharge. The quality of the combined effluent streams exiting the mine boundary is compliant; and
- One additional neutralising tank has been installed to increase the pH of solution above 9 in order to precipitate more Mn and hence to reduce in the effluent discharge. Currently it is in operation.

Scott Wilson Ltd (July 2010) conducted an Environmental Protection Fund audit of Mufulira Mine performance against EMP commitments and ECZ approval conditions. The mine was compliant with the vast majority of these commitments.

The areas of non-compliance identified in the Scott Wilson Ltd audits which represent sufficient risk to Mufulira Mine operations and to meeting Equator Principles and IFC requirements include:

- Mine effluent discharge quality exceeds the mine permit conditions in some instances, although final mine discharge (at the mine boundary) is compliant. Scott Wilson (July 2010) reported 80% compliance against this requirement/commitment;
- The high volume of raffinate reporting to the neutralisation plant has resulted in some bleed with low pH (less than pH of 8.5) and elevated Mn concentration levels reporting to the tailings stream (80% compliance) resulting in low compliance (80%) of the dam discharge; and
- As stated above the additional neutralising tank will improve the pH and will reduce Mn level in the effluent. We should able to meet compliance more than 80%
- Smelter SO_2 emissions exceeding the stipulated long term emission levels (60% compliance). Mufulira has embarked on a substantial smelter upgrade project which aims to reduce SO_2 and dust emissions to acceptable levels. Implementation of phase 3 of the Smelter upgrade project will address the SO_2 and dust in Smelter emissions ex converters. Project completion is due by 2015.

The impacts and risk areas are discussed further in the next subsection.

8.2.5.2 Mufulira key environmental aspects and risks

Impact of effluent discharges on river quality

The majority of process water used at Mufulira is obtained from dewatering of its underground operations, although water is also piped from three surface dams located on the Mufulira Stream. These dams retain water upstream of the sensitive mine caving area. Some of the water piped across the caving area is abstracted for use on the mine, as process water as well as for local potable use after treatment by the Mulonga Water and Sewerage Company (“MWSC”).

Plant surface water is managed within a network of concrete lined open channels, which drain into the Kankoyo and Norries drains which then combine to form the main mine drain. The main mine drain passes through a cascade of rock gabion settling structures before finally discharging into the Mufulira Stream,

downstream of the mine caving area diversion system. The Mufulira Stream flows in a southerly direction towards the Kafue River. Each of these outlets is monitored daily and exceedences are reported biannually to ECZ and MSD.

Figure 72: Solids settling ponds for wastewater leaving plant area

On the basis of the observations of Scott Wilson Ltd (July 2010) and our own limited observations within the time frame of this audit, it would appear that effluent is relatively well managed at Mufulira. Concentrates are stored under cover, spillage is minimised and silt loads are maintained at a relatively low level.

Scott Wilson Ltd reviewed site surface water monitoring results over the 12 month period prior to the audit and confirmed that the quality of the final mine discharge water from the mine consistently meets the Zambian limits as required under the Third Schedule to the Water Pollution Control (Effluent and Waste Water) Regulations (SI 72 of 1993). It is important to note, however, that individual monitoring locations with the mine boundary show some exceedances, particularly in regards total suspended solids ("TSS"), Fe, Cu and Mn. These exceedances should be investigated as they represent a risk to Mufulira Mine.

As mitigation of the risks associated with the discharge into the rivers the Mulonga Water Treatment Plant facility provides for pumping of backwash which is currently discharged into plant drains to concentrator Tailings Thickener for disposal to TD11 is due for completion by end of February 2011. This is also expected to improve the quality of wastewater discharged into Mufulira Stream from the plant.

Impact of tailings and raffinate management

The only operational tailings dam is TD11 which encompasses a series of smaller, older dams. The discharge from this is via a spillway in the south-west corner.

Monitoring of the discharge water quality indicates (Scott Wilson Ltd, July 2010) that the quality generally conforms to the licence discharge consent limits, with the exception of Mn.

The source of elevated Mn has been attributed to high volumes of raffinate bleed being discharged to TD11 and the lack of capacity of the neutralising plant to ensure metal precipitation in the tailings solids. GAA is aware, that the mine has commenced with remedial actions to address this impact.

The additional neutralising tank should help in reducing the Mn level in effluent discharge.

In order to mitigate these risks Mufulira has:

- Initiated a process to install automatic pH control system for the Raffinate bleed off to enhance effectiveness of neutralisation (due in 2011); and
- commenced a process of planting of vegetation on areas of TD11 dump which will not be deposited with tailings in the future e.g. the southern embankment. Rate and extending of annual planting is being intensified since the last two rainy seasons.

Impact of Mufulira Smelter SO_2 and dust emissions

The Mufulira Smelter is in the process of a major phased upgrade programme to achieve the double benefit of removing process bottlenecks and reducing air quality emissions to an acceptable level. A formal decision made by ECZ in 2007 grants Mufulira a revision of the SO_2 capture limit for the Smelter Upgrade Project from the initially approved target of between 55% and 59% to 50%. This revision (or stability) period ends in 2015. Monitoring data provided to the auditors shows the capture of SO_2 is on average compliant.

Phases 1 and 2 of the Mufulira Smelter Upgrade Project have already been implemented. These upgrades included the installation of a new Isasmelt Smelter, electrostatic precipitator ("ESP"), upgrade of the concentrate shed, oxygen plant, matte settling electric furnace, acid plant (single-contact single absorption), an upgrade of anode furnaces and casting areas, and an upgrade of plant services. The Isasmelt furnace was commissioned in 2006.

Phase 3 will incorporate upgrades to the converters (a new converter is scheduled for December 2011 and a second new converter by December 2012) and the installation of a second (double-contact) acid plant. A gas cleaning hood on the new converters will collect fugitive gas which will then report to the off-gas system for gas cleaning and cooling.

Zambian Air Pollution Control Legislation (Schedule 1 of SI 141 of 1996) sets ambient air guideline limits for SO_2 of 125 $\mu g/m^3$/24 hr which are applicable to areas outside the Mufulira Mine plant. Daily ambient air monitoring is undertaken at four long established locations (clinics) outside the plant site boundary. Instances of exceedances are at times recorded at three of the four clinics but monthly averages remain below the limit.

As mitigation of these environmental risks:

- a Smelter Floccullant system for the feed to the solids settling ponds on Main Mine Drain is being constructed and due for completion by end of April 2011. This is expected to improve the quality of wastewater discharged into Mufulira Stream;
- a process of planting of vegetation on areas of TD11 dump has been initiated which will mean that no tailings will be there in future e.g. the southern embankment. The rate and extension of annual planting is being intensified since the last two rainy seasons. There is an operating and maintenance manual for the dump which guides the concentrator on the management of the dump. Regular meetings are also held with the external dumps consultant; and
- Mopani is compliant with emissions capture under the EMP approved with the ECZ. All ECZ permits applied for 2011 have been issued by the ECZ and processing of the same by the ECZ is in progress.

In summary, Mopani has responded in a proactive manner to the significant risk posed by SO_2 and dust generation from its' Mufulira Smelter and associated activities. The introduction of the new converters and second acid plant should achieve significant further reduction in emission levels and bring the mine into compliance with long term emission limits.

Table 34: Compliance of Mufulira Mine operations with Equator Principles and IFC requirements

	Requirement	Compliance Rating	Reasons for Compliance /Non Compliances
Principle 1: Review and Categorisation	Projects are categorised on the basis of the magnitude of potential impacts and risks,	Compliant	Mufulira is an operating mine. The environmental license and permit conditions for the mine are based upon the EIA prepared by SRK (2003). For the purposes of this EIA, the mine was correctly classified as a Category A project and the assessment was prepared accordingly.
Principle 2: Social and Environmental Assessment	Social and Environmental Assessment Process required to address impacts and risks of construction, operation and closure. Mitigation required which is appropriate and implementable.	Compliant	Category A EIA and various EMPs completed, including the most recent updated Global EMP by Scott Wilson, 2009. A Social Management Plan was prepared by the Copperbelt University, Department of Urban and Regional Studies, in 2007, providing a detailed management framework as a basis for promoting sustainable development and poverty alleviation. The updated EMP and SMP provide an appropriate foundation on which to base the company's interaction with communities and commitments to sustainable development practices.
Principle 3: Applicable Social and Environmental Standards	IFC PS 1: Social and Environmental Management System	Non compliant	EMS in progress but not complete and implemented. The company has substantial capacity for social impact management under the Corporate Affairs Manager.
	IFC PS 2: Labour and worker conditions	-	Labour practices are dealt with in the Employment, Retirement and Retrenchment Action Plan. The plan deals with: Retrenchment and/or Retiree benefits and counselling (requirements for counselling prior to retrenchment) Multi skilling and training (training in order to assist retrenched workers to remain economically active) Local employment (local employment strategy including an 'expatriate replacement strategy' and a plan which ensures the development of its own workforce as well as contractor labour) Specific performance criteria are set in order to monitor effectiveness of the plan. These include number of people employed by Mufulira, number of people employed in different categories, number of expatriates replaced by Zambian labour, implementation of a Human Resources Development Plan.
	IFC PS3: General requirements	N/A	-N/A
	IFC PS 4: Community Health, Safety and Security – Community Health and Safety	Compliant	The Mufulira SMP includes a Health and Welfare Action Plan. The plan provides for company involvement in combating HIV/AIDS among workers and in surrounding communities. Provision is made for verifying that contractors employed by the company

			comply with its HIV/AIDS policy. Other community health management commitments are made in the Scott Wilson (2009) EMP. These are mainly related to malaria interventions.
	IFC PS 4: Community Health, Safety and Security – Security	N/A-	Not evaluated.
	IFC PS 5: Land Acquisition and Involuntary Resettlement – general requirements	Compliant	The Mufulira SMP includes a Land Use and Settlement Action Plan. The plan has a number of components: Demarcation and communication of boundaries of mine surface area to communities and ongoing communication to permit safe use of designated areas within the MSA for community use; Limitation of the growth of informal settlements around the mine; Protection of communities from mining hazards (including requirements for signage, access control, education, awareness raising, patrols etc.); Management of seasonal cultivation in the MSA through a permitting system; Community-based natural resource management ("CBNRM") with settlements and current land users on the MSA to assist in the conservation of woodlands. The programme is conducted in cooperation with the Government's Forestry Research Division and includes awareness raising, networking and patrols. Management of use of MSA water bodies including monitoring of use and signage warning people about hazards of fishing in potentially contaminated areas (e.g.: tailings dams). Maintenance and demarcation of access roads in the MSA. Sustainable land use management. This includes networking with DACO and FRD regarding training and awareness programmes to develop. A monitoring plan is set out which includes tracking of a large number of performance indicators.
	IFC PS 7: Protection of Indigenous Peoples	N/A	Indigenous peoples are not affected by the mining activities.
	IFC PS 8: Cultural Heritage – protection of cultural heritage in project design and execution	Compliant	No heritage resources impacted.
	IFC PS 8: Cultural Heritage – project's use of cultural heritage	Compliant	The mine does not use cultural heritage resources.

Principle 4: Action Plan and Management System	Environmental and Social Action Plan	Compliant	The SMP for the mine includes a series of Action Plans that set out the specifics of required social management activities, together with roles and responsibilities, time frames and monitoring and evaluation schedules. The Action Plans are as follows: Employment (Medical Discharge, Retirement and Retrenchment) Action Plan; Local Business Development Plan; Health and Welfare Plan; Physical Infrastructure Plan; Land Use and Settlement Plan; Community Management Support Plan; Disclosure and Consultation Plan.
Principle 5: Consultation and Disclosure	Ongoing consultation with affected communities in a structured and appropriate manner.	Compliant	The Mufulira SMP includes a Disclosure and Consultation Action Plan. The objective of the plan is to develop good relationships between Nkana mine and the public, to ensure transparency between the mine and stakeholders.
Principle 6: Grievance Mechanism	Formal grievance mechanism required as part of the management system.	Compliant	A formal grievance procedure is in place.
Principle 7: Independent Review	Independent social or environmental expert not directly associated with the borrower to review the assessment, consultation process and Equator Principle compliance.	Compliant	Independent reviews/audits are undertaken. Recent audits include: JA Consultants (2008); MCM (2009); Scott Wilson (2010)
Principle 8: Covenants	The following covenants to be included in financing documentation: The borrower will: Comply with all host country social and environmental laws, regulations and permits; Comply with the action plan during construction and operation in all material respects; Provide reports (not less than annually) to document compliance	Potentially Compliant	If the Environmental Management Plan and Social Management Plan are fully implemented, the project appears to be capable of meeting Equator Principle requirements. Environmental authorization is in place, with a permit issued by the Environmental Council of Zambia in April 2004. All other environmental and social permits appear to be in place and are meticulously documented in Table 3-3 of the Mufulira updated EMP (Scott Wilson, 2009). The EMP also sets out all of the environmental requirements that are conditions of approval of the Environmental Council of Zambia, together with the management action necessary to meet each condition and whether it was once off or ongoing.

	with laws, regulations and permits; and Decommission the facilities in accordance with an agreed decommissioning plan		Updating of the EMP is required annually and the updating process for 2010 was in progress.
Principle 9: Independent Monitoring and Reporting	An idependent, experienced external expert to verify monitoring information on a regular basis.	Partially compliant	Independent audits cover general compliance but are not fully comprehensive. This should be resolved through the implementation of an EMS. Third party audits of EMP carried out by approved independent auditors (AMC in 2009 & Scott Wilson in 2010).

8.2.5.3 Mufulira key social aspects and risks

Two main documents drive social impact management at Mufulira mine:

- The Updated Global Environmental Management Plan, prepared by Scott Wilson (2009), which includes all relevant commitments from previous EMPs;
- The Life of Mine Social Management Plan (2007), prepared by the Copperbelt University, Department of Town and Regional Planning.

With reference to compliance with the social elements of the plans described in Table 1 above, the following comments are made, based on the brief discussions held with Mufulira staff and the recent audit by Scott Wilson (2009):

- **Social Assessment (Equator Principle 2):** The Social Management Plan is not audited and while some of the components of the plan are included in the updated EMP, there are specific monitoring requirements that are not. The SMP needs to be included in future audits or fully incorporated in the EMP in the next annual update.
- **Social / Environmental permits (Equator Principle 2):** Mufulira appears to be fully compliant with respect to permitting, with a comprehensive and updated list of permits available for review (sixty seven permits listed in the recent Scott Wilson, 2010 audit).
- **Community Health Safety and Security (Equator Principle 3, IFC PS 4):** Mufulira operates one hospital and three clinics in the former mine townships, as well as four plant site clinics at a cost of around USD 8 million per annum. Clinic services are available to all members of staff and their families and to children under five at no charge and to other members of the surrounding communities for a fee.

  The company supports an on-going malaria control programme that extends beyond the protection of its own employees into surrounding communities. It involves Integrated Vector Management ("IVM"), which is a comprehensive malaria programme that targets mosquitoes at every stage of their life cycle. The company coordinates its malaria programme with Government and NGO initiatives. It is company policy that all malaria complaints are verified with blood tests, and malaria monitoring and reporting is conducted. The company's malarial control commitments cost an average of around USD 1 million per year. Malarial incidence among patients to the company's medical facilities has dropped from 90 cases/1000 in 2001 to around 30 cases/ 1000 treated in 2010 (Zambian National average is 250 cases/ 1000 treated). The data were obtained from Mopani clinics that treat patients from within a catchment of 60 000 people (Kitwe).

  The company also implements a comprehensive HIV AIDS Management Programme. This involves a full range of initiatives from prevention through treatment, care and support. An HIV AIDS policy has been submitted to Government. An extensive training program has been implemented which trains trainers, peer educators, palliative care providers and psychosocial councilors in the workplace and the community. Work includes partnering with NGOs such as the Catholic Relief Services who have experience in this field.

  Regarding community safety, there has been no loss of life in surrounding communities as a direct result of mining and mining related activities. One significant incident has arisen since privatization in which a pump failure caused an acid leak that contaminated the company's supply of water to the community. This resulted in hospitalization and treatment of a number of people. No-one was seriously injured although the incident necessitated a considerable amount of work to rebuilt community trust.

  A company procedure is in place to manage emergencies, supported by professional risk assessments.
- **Resettlement (Equator Principle 3, IFC PS 5):** No resettlement has been necessary since the start of the Mufulira operations. Any resettlement that is to be done in the future will be planned and implemented with the assistance of experts according to international standards. Regarding the management of existing settlement, a significant number of compliance requirements are set out in the

SMP, together with specific performance standards for monitoring. These are not referred to in detail in either the SRK (2007) audit or the recent Scott Wilson (2010) audit and no information has been provided to the reviewers to demonstrate whether they are being systematically implemented.

- **Corporate Social Responsibility (Equator Principles 3 & 4):** An appropriate organizational structure and staffing for social impact management on the mine has been set up under the Manager Corporate Affairs. The company is involved in a number of programmes to encourage and facilitate local business development. These include a range of projects including infrastructure (e.g. water supplies) and agricultural projects motivated under the Employment, Retirement and Retrenchment Action Plan in the SMP. These projects include a variety of initiatives, including training of retirees to farm effectively, financial training and assistance in the financing of stock and infrastructure. A good example is Makumbi Farm.

- **Consultation and Disclosure** (**Equator Principle 5**): A comprehensive, ongoing process is implemented by the company. Community liaison officers have been appointed for each township and are responsible for liaison with villagers and for providing feedback, requests and grievances from the community to the Corporate Affairs Manager. Feedback forms are at various convenient locations for stakeholders to provide the company with comment. These are collected regularly and entered into a central database.

- **Community Grievances (Equator Principle 6):** The EMP and SMP are being implemented in the context of the social issues arising from the privatization of the mine, resulting in many services previously provided by ZCCM no longer being available or not being available without charge to members of local communities not employed by the mine. The Manager Corporate Affairs is aware that there are legacy issues associated with the privatization of certain government services, such as health, housing and education. The community may expect that in future the mine will supply these services. The community expectations need to be appropriately managed.

- **Overall compliance (social):** Compliance with the EMP has been audited several times in the past 5 years. Most recently, the Scott Wilson (2010) audit included a review of the findings of the previous audits and is consequently the most current independent view of compliance with the EMP. It may be seen that Mopani's performance is rated highly, with the company achieving a 100% compliance rating for all of the listed social items. It is, however, not clear from the existing documentation whether the company is fully compliant with all of the commitments made to manage social impacts included in the SMP. This needs to be rectified in the required annual update of the EMP.

  The above evidence provides the assurance that Mopani is complying with its commitment to manage social issues and promote sustainable development within the limits that could reasonably be expected of a private company. The management of community expectations driven by the legacy issues referred to above is a critical factor affecting the long term relationship between the mine and the community. In the Corporate Affairs Manager's view, the mine, through its social investment programme, will gradually improve its relationship with local communities. This appears to be a realistic appraisal, although no evidence was presented to the reviewers that could verify the extent to which disillusionment with the privatization of the mine is ubiquitous and how deep these sentiments run. Nevertheless, various complaints have been logged using the company's community feedback system, such as minutes of community meetings. There have been no cases of concerted civil action relating to this issue, which suggests that dissatisfaction is not at a level at which mine stoppages or similar outbreaks of anger or disillusionment with a perceived lack of benefits flowing from the mine are likely.

8.2.6 Health and Safety

The organisational structure for Mopani provides that the CEO bears the overall responsibility for the management of SHE matters.

Operating responsibility lies with the respective chief officers and their respective line managers, superintendents and heads of departments as the case may be. In this the principal guiding policy is the SHE (Pol 002).

The operationalisation of the policy is coordinated by the SHE Department headed by the SHE Manager.

The primary functions for the SHE Department can be summarised to include the following;

- Provide expert advice and guidance. To various departments as regards acceptable/ appropriate safety, occupational hygiene and environmentally sound practices
- Ensure compliance with the relevant SHE legislation and in their absence use international best practices as the standard.
- Ensure that new projects are developed in accordance with legislative provisions or in their absence international best practices.
- Provide in-house training in requisite SHE guidelines in respect of Mopani operations to new employees prior to their deployment to their work departments.
- Drive the continuous improvement programme on SHE matters such as those in respect to the requirements of ISO14001 and OHSAS18001 standards.
- The health and safety statistics set out below for Mufulira suggest a significant reduction in the number of Lost Time Injuries (LTIs) between 2008 (151) and 2010 (82); and fatalities between 2008 (5) to 2010 (3).

Table 35: Mufulira Injury Trends: 2008 - 2010

	2008	2009	2010
LTI	151	73	82
NLTI	152	74	96
Fatalities	5	1	3

8.2.7 Industrial Relations

The company maintained sound industrial relations since 2008 to date as the only recorded unconstitutional industrial action took place in 2003 and 2007 respectively at Nkana Mine Site over pay related issues during the bargaining process. There are two recognised Labour Unions operating under Mopani namely: Mine Workers Union of Zambia (“MUZ”) and the National Union of Mine and Allied Workers (“NUMAW”). The last recorded incident of non-procedural industrial action occurred in 2007 over salary issues during the bargaining process.

8.2.8 Concluding Statements

After reviewing of existing site documentation, conducting brief interview of site personnel and visiting areas of the site of known potential environmental impact, the following conclusions were reached from the audit of environmental and social management at Mufulira Mine:

- The environmental performance of Mufulira Mine is largely compliant with its EMP and licence conditions;
- Environmental impacts which generally exceed licence conditions and pose a risk to Mufulira Mine operations in terms of compliance to statutory requirements and the Equator Principles include:
  - The quality of several effluent streams within the mine boundary at times exceeds mine permit conditions, although final mine discharge (at the mine boundary) is compliant;
  - Stream quality impacts resulting from the tailings facility due to below critical limit (pH 8.5) neutralisation of raffinate bleed of to tailings ; and

- Smelter SO_2 and (to a lesser extent) particulate emissions.

- Mopani is complying with its commitment to manage social issues and promote sustainable development within the limits that could reasonably be expected of a private company.

- The management of community expectations driven by legacy (historical liabilities) issues is a critical factor affecting the long term relationship between the mine and the community.

8.2.9 References

- Mopani Copper Mine (2005a). Procedure for the Management of Hazardous Substances at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO012 Rev 1, dated 18th January 2005.

- Mopani Copper Mine (2005b). Procedure for the Management of Wastes at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO016 Rev 1, dated 18th April 2005.

- Scott Wilson Ltd (June 2009). Mufulira Mine Site Updated Global Environmental Management Plan.

- SRK (July 2003). Mufulira Mine Environmental Impact Statement.

- TD11 Slope Stability Analysis Report by Scott Wilson Piesold Zambia Limited

- Emergency Preparedness and Response Plan 2006, by Scott Wilson Piesold Zambia Limited.

- TD11 Operating and Maintenance Manual 2008 by Scott Wilson Piesold Zambia Limited

- Third Party Audit Reports for the period 2007, 2008, 2009 and 2010.

- Procedure for the Management of Hazardous Substances at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO012 Rev 1, dated 18th January 2005.

- Procedure for the Management of Wastes at Mopani Copper Mine (Nkana and Mufulira): MCM Procedure PRO016 Rev 1, dated 18th April 2005.

- Mufulira Mine Environmental Impact Statement compiled by SRK (July 2003) and including:

  - Volume 1: Assessment of Impacts; and

  - Volume 2: Environmental Management Plan.

Baseline studies (2001) by SRK which was also used in determining which mine assets were transferred to Mopani and which remained with the previous owners as historical liabilities.

9.0 MARKET OVERVIEW

9.1 Copper

Copper is a major industrial metal (ranking third after iron and aluminium by consumption) because it is highly conductive (electrically and thermally), highly ductile and malleable, and resistant to corrosion. Electrical applications of copper include power transmission and generation; building wiring; motors; transformers; telecommunications; electronics and electronic products; and renewable energy production systems. Copper and brass (an alloy of copper) are the primary metal used in plumbing pipes, taps, valves and fittings. Further applications of copper include decorative features; roofing; marine applications; heat exchangers; and in alloys used for gears, bearings and turbine blades.

Global copper mine production was 15.7Mt in 2009, with 5.4Mt (or 35%) produced in Chile, by far the largest producer. Zambia and the DRC produced 0.6Mt (3.8%) and 0.3Mt (1.9%) respectively. Global refinery production in 2009 was 18.4Mt, including 2.9Mt of secondary refined production. Global consumption was slightly lower at 18.2 Mt. The International Copper Study Group (1 October 2010) estimates global mine

production for 2011 at 17Mt, with global consumption at 19.7Mt. Table 36 shows the historical and 2011 forecast global refined copper market balance.

Table 36: Global refined copper market balance (Source: USGS):

Thousand Tonnes	2006	2007	2008	2009	*2010 Jan-Sept*	2010 forecast	2011 forecast
Global Mine Production	14,991	15,474	15,528	15,754	11,853	16,235	17,076
Primary Refined Production	14,678	15,191	15,399	15,466	11,729	-	-
Secondary Refined Production	2,613	2,743	2,823	2,911	2,513	-	-
World Refined Production	17,291	17,934	18,222	18,377	14,242	19,278	20,498
Consumption	17,058	18,239	18,056	18,198	14,678	18,882	19,729
LME Copper Price (avg)	6,727	7,126	6,952	5,164	7,175	7,543	-

The copper price has demonstrated significant volatility in the last 5 years, as shown in Figure 73. The price was USD4,585/tonne on 1 January 2006, at that point a near-record high. The price rapidly increased, reaching a high of USD8,800 /tonne in May 2006. By February 2007 it had declined to USD5,302 /tonne, the price of copper increased along with commodities generally, reaching a new high of USD8,900 /tonne by July 2008. Thereafter, as the financial crisis took effect on the global economy, the price declined to USD2,810 /tonne in December 2008, the lowest level in almost 5 years. Since then, the price has generally trended upward, reaching a new record high of USD9,695 /tonne on 12 January 2011.

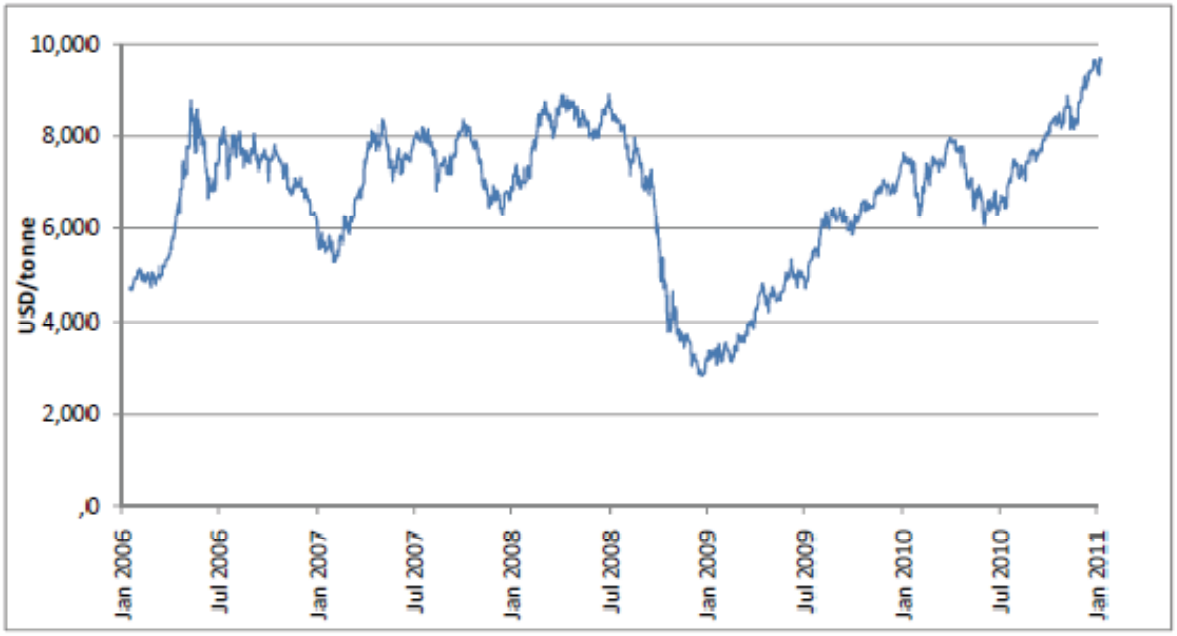


Figure 73: The London Metal Exchange copper price from January 2006 to date (Source: LME)

The copper price forecast used in the economic evaluation of the project is shown in Table 37. The forecast is based on published London Metal Exchange ("LME") monthly futures prices, using the June contracts as the basis for each respective year through to 2019. These publicly available prices are quoted in nominal terms. The financial model used for the economic evaluation is in real terms (2011 USD), and the real copper price forecast is derived from the nominal prices using the US CPI estimates in Table 37. The forecast nominal average price for 2011 is USD9 600 /tonne, declining to USD6 800 /tonne in 2019.

Table 37: Copper price forecast

Copper price (USD/Tonnes)	2011	2012	2013	2014	2015	2016	2017	2018	2019	Long Term
Nominal	9,600	9,300	9,000	8,600	8,200	7,800	7,500	7,100	6,800	6,861
Real	9,600	9,208	8,822	8,347	7,880	7,240	6,859	6,397	6,036	6,000
US CPI	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%

9.2 Cobalt

Cobalt has many commercial, industrial and military applications. The leading use of cobalt is in rechargeable battery electrodes. The temperature stability and heat and corrosion-resistance of cobalt-based superalloys make them suitable for use in turbine blades for jet turbines and gas turbine engines. Other uses of cobalt include vehicle airbags; catalysts for the petroleum and chemical industries; cemented carbides and diamond cutting and abrasion tools; drying agents for paints, varnishes, and inks; dyes and pigments; ground coats for porcelain enamels; high-speed steels; magnetic recording media; magnets; and steel-belted radial tyres.

Far less cobalt is produced than copper: global mine production of cobalt was 62 000 tonnes in 2009, with 25 000 tonnes (or 40%) produced in the DRC, the largest producer. Australia, China and Russia each produced about 6 200 tonnes (10%). Global refinery production in 2008 was 57 600 tonnes, with global consumption slightly higher at 60 654 tonnes. Table 38 shows the historical global refined cobalt market balance. Roskill Information Services, a mineral industry information research group, has forecast cobalt demand of 72 500 tonnes in 2011 (October 2010).

Table 38: Global refined cobalt market balance

Metric tonnes	2004	2005	2006	2007	2008	2009
Global Mine Production	60,300	66,200	69,800	72,600	75,900	62,000
World Refined Production	48,500	54,100	53,800	53,300	57,600	No data
Consumption	51,400	54,685	54,685	56,250	60,654	59,000
Cobalt Price (avg)	2,277	1,456	1,535	2,831	3,616	1,589

The cobalt price reached a record of USD48.63 /pound in March 2008, falling in line with other commodities to a 5-year low of USD11.00/pound in December 2008. The price has recovered, and since cobalt started trading on the LME in May 2010, the price has averaged USD17.55 /pound, with a maximum of USD19.64 /pound and a minimum of USD15.94 /pound. See Figure 74

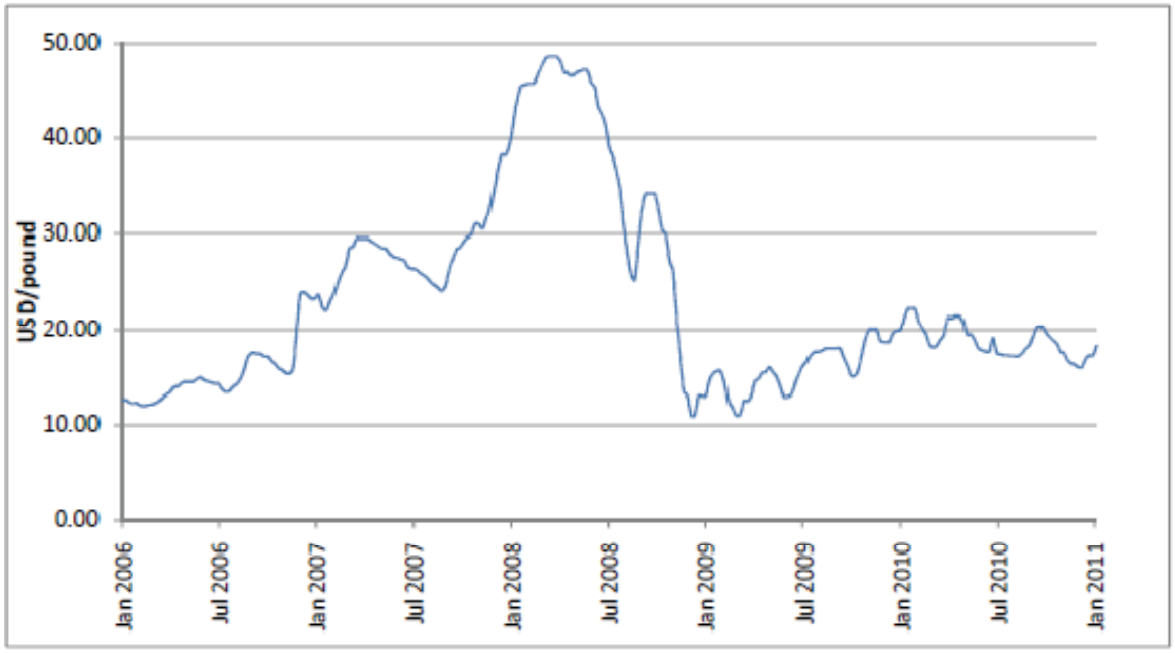


Figure 74: The cobalt price from January 2006 to date (Source: Inet Bridge)

The cobalt price forecast used in the economic evaluation of the project is shown in Table 39. The forecast is based on the Metal Bulletin 99.8%Co USD/pound price (in nominal terms) available for the next spot delivery. The forward curve is assumed to gradually decline for the next three years, before falling to its long term value. The financial model used for the economic evaluation is in real terms (2011 USD), and the real cobalt price forecast is derived from the nominal prices using the US CPI estimates in Table 39. The forecast average price for 2011 is USD17.24 /pound, declining to USD13.00 /pound in 2019.

Table 39: Cobalt price forecast

Cobalt price (USD/pound)	2011	2012	2013	2014	2015	2016	2017	2018	2019	Long Term
Nominal	17.24	16.78	16.00	15.00	15.00	15.00	13.00	13.00	13.00	13.00
Real	17.24	16.62	15.68	14.56	14.41	13.92	11.89	11.71	11.54	11.00
US CPI	1.0%	1.0%	1.0%	1.0%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%

10.0 TECHNICAL AND ECONOMIC ASSUMPTIONS

10.1 Revenue assumptions

MCM has entered into off-take agreements with Glencore, pursuant to which Glencore will buy 100% of the quantities of Cu and Co produced by MCM over the life of the mine. The off-take agreements are negotiated at arm's length at standard market terms.

10.2 Capital Cost Estimate

A summary of the capital cost estimate by major cost items is presented in Table 40 below. The capital expenditure items are as follows:

- **Primary Development:** Capital expenditure in order to gain access to the ore bodies. As a result of the economic crisis in 2008/09, during which copper prices decreased significantly, MCM reduced the level of primary development. Subsequently, when prices recovered, MCM required significant primary

development in the mines; a primary focus in 2010 and 2011 in order to achieve sustainable levels. Primary development includes preparation of haulages to access the ore body, raise boring for ventilation of ore passes, and rehabilitation of older haulages;

- **Mining:** Capital expenditure related to sustaining the current operations and expenditure on vehicles;
- **Processing:** Capital covers mostly sustaining expenditure on current processing plants;
- **Engineering:** Firstly, the supply of infrastructure and general mine wide services not directly linked to the mines or processing plants, such as water, air and electrical reticulation and general workshops. Secondly, the supply of engineering services to the mines and process plants;
- **Services:** Capital expenditure for environmental, medical and corporate social investment projects;
- **Corporate:** Capital expenditure on IT and security projects;
- **Special Projects:** Capital expenditure for numerous projects across mining, plant and services, including:
  - Major overhauls such as the rebuilding of the tank house at the refinery, the rebricking of ISA every 2 years and rebricking of the MSEF every 4 years.
  - New operating assets, such as ISA Smelt, MSEF, Acid Plant, Anode Furnaces and Casting Wheels, Converters, Smelter water pipeline to the Kafue.
  - Expansion Projects such as Synclinorium Shaft and related infrastructure, Area J open pit stripping, leach mine and process plants.

Table 40: Capital Expenditure

USD Millions	2010 Actual	2011	2012	2013	2014	2015	2016 - 2035	Total 2011 – 2035
Primary Development ("PD")								
Mufulira	0.5	6.2	2.9	3.4	1.1	1.4	6.0	21.0
Nkana	8.8	13.3	11.4	11.0	5.1	19.2	81.7	141.7
PD Subtotal	**9.3**	**19.5**	**14.3**	**14.4**	**6.2**	**20.6**	**87.7**	**162.7**
Mining								
Mufulira	8.4	8.2	14.5	7.2	6.1	6.6	30.1	72.7
Nkana	24.6	12.7	18.4	18.2	10.9	10.1	228.1	298.4
Technical	1.0	4.9	2.9	1.2	1.1	1.0	5.4	16.5
Mining subtotal	**34.0**	**25.8**	**35.8**	**26.6**	**18.1**	**17.7**	**263.6**	**387.6**
Processing								
Mufulira	0.2	1.2	0.8	0.8	0.8	0.5	4.8	8.9
Mkana	1.5	3.6	2.4	1.1	1.2	0.8	26.2	35.3
Smelter	21.9	4.1	1.7	1.3	0.5	0.3	20.9	28.8
Refinery	7.1	5.7	1.4	0.7	0.4	0.6	23.1	31.9
Cobalt Plant	2.5	4.3	2.8	2.4	1.8	2.0	47.1	60.4
Other	2.6	0.6	0.4	0.6	0.3	0.2	3.9	6.0
Processing subtotal	**35.8**	**19.5**	**9.5**	**6.9**	**5.0**	**4.4**	**126.0**	**171.3**
Other Cost Centres								
Engineering	9.7	19.6	13.7	10.1	6.9	7.6	112.5	170.4
Services	0.6	0.6	1.4	0.7	0.5	0.4	7.3	10.9
Corporate	1.7	1.1	0.6	0.5	0.5	0.5	6.8	10.0
Other subtotal	**12.0**	**21.3**	**15.7**	**11.3**	**7.9**	**8.5**	**126.6**	**191.3**
Special Projects								
Synclinorium	8.2	45.7	70.3	61.2	87.5	22.0	49.5	336.2
Smelter	1.8	28.4	31.0	28.1	30.0	0.0	65.5	183.0
Other	28.5	22.4	1.4	2.6	2.5	1.4	14.4	44.7
Special Projects subtotal	**38.5**	**96.5**	**102.7**	**91.9**	**120.0**	**23.4**	**129.4**	**563.9**
Total capital expenditure	**129.6**	**182.5**	**178.0**	**151.1**	**157.2**	**74.6**	**733.3**	**1,476.8**

10.3 Operating Cost Estimate

In general, the operating costs of MCM are split 70% fixed and 30% variable. Mining costs decrease from 2012 due to a decrease in secondary development, which is expected to stabilise from that point onwards. Similarly, processing costs decrease from 2012, due to a decrease in the processing of certain ore sources

as per the mine plan, and due to an improvement in efficiencies as a result of plant upgrades. The operating costs are as follows:

- **Open Pit and Underground Mining:** these costs include:
  - **Mufulira Mine:** the costs are based on current and budgeted costs. The weighted average cost applied over the LOM is USD 67.55/t ore mined;
  - **Nkana Mine:** the costs are based on current and budgeted costs as an owner operation. The weighted average cost applied over the LOM is USD 28.71/t ore mined;
- **Processing**
  - **Mufulira concentrator:** The weighted average cost applied over the LOM, including fixed costs, is USD 13.12/t ore treated;
  - **Nkana concentrator:** The weighted average cost applied over the LOM, including fixed costs, is USD 6.95/t ore treated;
  - **Smelter:** The weighted average cost applied over the LOM, including fixed costs, is USD 87.33/t concentrate treated;
  - **Refinery:** The weighted average cost applied over the LOM, including fixed costs, is USD 76.62/t final copper;
  - **Cobalt Plant:** The weighted average cost applied over the LOM, including fixed costs, is USD 11,015/t final cobalt;

The major operating items are detailed on an annual basis in Table 41 below.

Table 41: Operational Expenditure

USD Million	2010 Actual	2011	2012	2013	2014	2015	2016 - 2035	Total (2011 – 2035)
Operating Costs								
Mining	259	267	215	214	213	212	2,899	4,020
Processing	172	190	174	175	175	171	2,987	3,871
Engineering	16	17	17	17	17	16	307	390
Corporate	31	34	33	33	33	32	642	807
Admin	19	7	6	6	6	6	103	135
Other	17	32	32	32	32	32	528	688
Total Operating Costs	514	547	477	478	476	469	7,465	9,912

11.0 TAXATION AND ROYALTIES

The major parameters which govern royalties, applicable to the project are shown in Table 42.

Table 42: Royalty and tax assumptions

Description	Application	Rate
Copper and Cobalt Royalties	Revenue	3.0%
Zambia Corporate Tax	Earnings	30%

12.0 ECONOMIC ANALYSIS

12.1 Introduction

This section presents a valuation of MCM. Glencore owns 73.1% of MCM. The valuation presented here is a valuation of Glencore's Interest in MCM, being the sum of the 73.1% Equity Value in MCM and Shareholder Loans provided to MCM.

12.2 Valuation Methodology

MCM is an operational mining company with several active mines and processing plants. Its resources and reserves are well-defined, and a comprehensive body of technical and financial information on its current and planned operations is available. An analysis of this information allows the future cash flows of MCM throughout the life of the mine to be projected. This is compatible with the discounted cash flow ("DCF") methodology, which determines the value of an asset by calculating the net present value of the future cash flows generated over the useful life of that asset.

The DCF valuation approach provides a "going concern" valuation, which is the value indicated by a company's future economic capabilities. Using this technique, value is calculated by the summation of the present value of projected cash flows, both income and expenditure, for a determined period. When using the DCF technique, the following four key areas must be assessed for accuracy and appropriateness:

- The assumptions underlying the projection of cash flow;
- The length of the projection period, in this case the life of mine; and
- The discount rate, in this case the risk adjusted weighted average cost of capital ("WACC") of the project.

The input assumptions of the model were checked against historical performance, contracts and the results of the studies by the Competent Persons who produced this report to ensure that the assumptions are reasonable. Additional analysis was done on the model results output to produce some of the results, graphs and tables presented in this report.

12.3 Valuation Assumptions

The following assumptions were used in the valuation model:

- The valuation date is 1 January 2011;
- The discount rate is set at 10% in real terms, which is the discount rate used by Glencore across its portfolio;
- The financial model produces a 20 year cash flow (2011 to 2030), while LOM projections are made to 2035;
- Mining and processing production rates, head grades and recoveries are as described in Section 4.1.4 and 4.2.4.
- Commodity prices are as described in section 9.1 and 9.2;
- Capital expenditure is as described in section 10.2;
- Operating expenditure is as described in section 0;
- Royalties and tax are as described in section 0;
- Glencore's equity share in MCM is 73.1%; and

- Glencore's attributable economic interest in MCM consists of the equity value in MCM and shareholder loans provided to MCM.

12.4 The Valuation of Glencore's Interest in MCM

The results of the DCF model are shown in Table 43, presenting the free cash flow attributable to MCM. The cash flow projections are based on expected future mining, production, metal sales, capital expenditure, operating costs and other expenses over the life.

Table 43: Cash flows over the LOM

	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	MUSD	1,449	1,195	1,145	1,133	1,089	995	968	942	928	921
Realisation costs	MUSD	(35)	(27)	(26)	(28)	(27)	(27)	(27)	(30)	(30)	(31)
Purchased Cu	MUSD	(207)	(62)	(59)	(55)	(51)	(46)	(43)	(40)	(37)	(36)
Net Revenue	***MUSD***	***1,207***	***1,106***	***1,061***	***1,050***	***1,011***	***922***	***897***	***873***	***861***	***854***
Operating Costs	MUSD	(547)	(477)	(478)	(476)	(469)	(467)	(469)	(443)	(446)	(444)
EBITDA	***MUSD***	***660***	***629***	***583***	***574***	***542***	***454***	***428***	***430***	***415***	***410***
Taxation	MUSD	(6)	(120)	(115)	(111)	(127)	(104)	(103)	(107)	(101)	(98)
Capital Expenditure	MUSD	(183)	(178)	(151)	(157)	(75)	(68)	(54)	(46)	(54)	(58)
Royalties	MUSD	(33)	(30)	(28)	(28)	(26)	(24)	(23)	(23)	(22)	(22)
Net Free Cash	**MUSD**	**439**	**301**	**289**	**277**	**315**	**258**	**250**	**254**	**239**	**232**
	Unit	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Revenue	MUSD	923	813	797	787	805	795	711	684	698	684
Realisation costs	MUSD	(39)	(33)	(32)	(32)	(32)	(32)	(27)	(26)	(26)	(26)
Purchased Cu	MUSD	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)
Net Revenue	***MUSD***	***847***	***743***	***729***	***719***	***737***	***727***	***648***	***621***	***635***	***621***
Operating Costs	MUSD	(444)	(371)	(368)	(366)	(368)	(365)	(343)	(321)	(323)	(321)
EBITDA	***MUSD***	***403***	***372***	***361***	***353***	***368***	***361***	***305***	***300***	***313***	***300***
Taxation	MUSD	(102)	(95)	(91)	(86)	(95)	(92)	(79)	(75)	(82)	(77)
Capital Expenditure	MUSD	(39)	(35)	(36)	(46)	(32)	(33)	(24)	(32)	(21)	(26)
Royalties	MUSD	(22)	(19)	(18)	(18)	(18)	(18)	(15)	(15)	(15)	(15)
Net Free Cash	**MUSD**	**240**	**224**	**216**	**203**	**224**	**218**	**187**	**178**	**195**	**183**

12.4.1 Base Case Valuation

The base case valuation of the Glencore Interest in MCM, at the 1st January 2011, is USD 1 922 million. The valuation of the Glencore Interest is Glencore's Equity Value in MCM and the Value of Shareholder Loans provided to MCM. The upper limit of the valuation is USD 2 261 million (discount rate of 7.5%) and a lower limit of USD 1 671 million (discount rate of 12.5%).

Table 44 to Table 46 present the sensitivity of Glencore's Interest to changes in the discount rate applied and metal prices, capital expenditure and operating costs respectively.

Table 44: Sensitivity of Glencore's Interest in MCM to discount rate and changes in metal prices

Glencore Interest (USD million)		*Change in metal prices*				
		-20%	**-10%**	**0%**	**10%**	**20%**
Discount Rate	**7.5%**	1,306	1,784	2,261	2,737	3,212
	10.0%	1,114	1,519	1,922	2,324	2,725
	12.5%	972	1,322	1,671	2,017	2,363

Table 45: Sensitivity of Glencore's Interest in MCM to discount rate and changes in operating costs

Glencore Interest (USD million)		*Change in operating costs*				
		-20%	**-10%**	**0%**	**10%**	**20%**
Discount Rate	**7.5%**	2,752	2,507	2,261	2,015	1,769
	10.0%	2,331	2,127	1,922	1,717	1,512
	12.5%	2,018	1,844	1,671	1,496	1,321

Table 46: Sensitivity of Glencore's Interest in MCM to discount rate and changes in capital expenditure

Glencore Interest (USD million)		*Change in capital expenditure*				
		-20%	**-10%**	**0%**	**10%**	**20%**
Discount Rate	**7.5%**	2,354	2,308	2,261	2,215	2,168
	10.0%	2,005	1,964	1,922	1,881	1,840
	12.5%	1,745	1,708	1,671	1,634	1,596

The sensitivity of the base case valuation to all three factors is shown graphically in Figure 75.

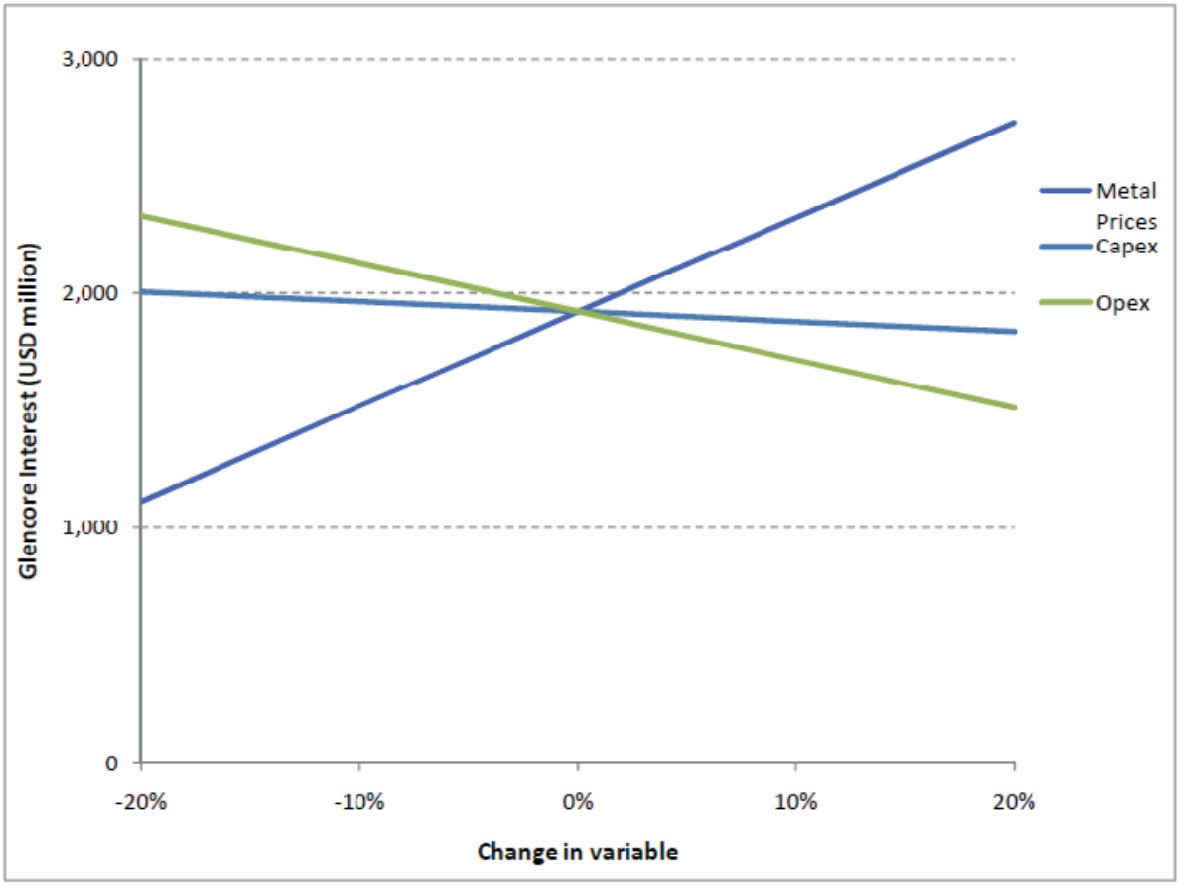


Figure 75: The sensitivity of Glencore's Interest in MCM to changes in metal prices, opex and capex

Glencore's Interest in MCM is most sensitive to metal prices – a 1% increase/decrease in metal prices causes a USD 40 million increase/decrease. A 1% increase/decrease in operating costs causes a USD 20 million increase/decrease. The project is least sensitive to changes in capital expenditure – a 1% increase/decrease causes a USD 4 million decrease/ increase.

13.0 RISK ANALYSIS

The Competent Persons involved in the technical analysis of the project were briefed to identify and document project risks during the course of their work. The project risks are summarised in this section.

13.1 Resource risk

Exploration:

Most of Mopani's measured and Indicated Resources have been converted to reserves. An active exploration programme is required to find further resources and convert Inferred Resources to Measured and Indicated. However, underground drilling is expensive.

13.2 Mining risks

Area J underground:

To bring production from Area J as far forward as possible, Area J underground is to be developed while the Area J open pit is being mined. There is a risk that additional technical work will be required to develop the pit to the underground portal access position earlier than normal. There is also a geotechnical risk presented

by blasting in the open pit in proximity to the underground development. There may also be a safety risk of collisions between open pit haul trucks and underground LHDs if mining operations are not well managed. The risk should be well defined and managed, and different access roads provided for open pit haul trucks and underground LHDs.

New shafts:

New vertical shafts and infrastructure are required to access new sections at Mufulira and Nkana. The bulk of future production comes from these areas, and this production will be lost if the shafts are not sunk. Deeper areas cause an increase in the costs of mining, hoisting and ventilation.

Eventually, most of the mining at Mopani comes from the single Synclinorium Shaft, at a rate of 4 Mtpa, which is a very high rate for one shaft. Although the shaft's design capacity is sufficient, a disruption in the capacity of the shaft will disrupt the entire production of the mine.

13.3 Processing risks

Back-up power supply:

The Nkana plant does not have a significant emergency power generation capability and should the power fail for an extended period without prior notification production and orderly shutdown of the plant will be severely affected. However at Luano there are back-up generators for the central shaft winders. In 2011, another back-up generator for the concentrator mill will be commissioned at Mindola.

13.4 Capital risks

Escalation of Costs:

Projects in the mining industry world-wide have recently experienced unpredictable capital cost overruns due to various macroeconomic and microeconomic factors that cannot be predicted with any reliable degree of certainty. Capital cost overruns require more funding and reduce project returns. This risk is rated as high, but could be managed through regular review of capital cost estimates by the MCM project team.

13.5 Sovereign Risk

The Republic of Zambia could be subject to developments that individually or in combination could create instability, whether economic or political. Such developments are outside MCM's control and could, should they occur, adversely affect MCM's operations in this region.

13.6 Economic and Market Risk

Commodity prices:

Copper and cobalt market prices are significant drivers of the profitability and valuation of MCM. These prices are subject to wide fluctuations beyond the control of the company due to factors such as demand for the commodities caused by global economic conditions and prospects, supply from various sources, currency and interest rate changes, and speculative activities. Sustained commodity prices below the costs of production may cause the curtailment or suspension of operations. There is some scope to manage market risk through hedging, but this may lead to loss of upside during periods of high commodity prices.

Operating costs:

Project operating costs also affect the profitability of MCM and the value of the Mopani project. These are subject to a wide range of pressures such as energy prices, oil prices, chemical prices, labour costs and inflation.

13.7 Environmental and Social Risks

Post-closure water treatment:

After mine closure, ongoing management of contaminated excess mine water arising from the reclaimed mining workings may be required. This would involve the collection, handling, treatment and safe disposal of