

14. MINING ASSETS VALUATION

14.1. Introduction

The following section presents discussion and comment on the valuation of the Material Properties. Specifically, comment is included on the methodology used to generate the FMs and to establish the Equity Values for Kumba and Eyesizwe individually, and for Exxaro as presented in Section 15 of this CPR for the two valuation Scenarios and Operating Options.

In complying with Section 12.14 of the Listings Requirements, specifically the non-technical requirements of 12.14(b), SRK has relied upon Kumba and Eyesizwe for certain inputs to the FMs. These inputs (discussed in Section 1.0 of this CPR) are duly acknowledged by SRK. Further in reproducing the results of the FMs in this CPR, SRK provides assurances to the Directors of Exxaro, that the technical-economic inputs: Listings Requirements Sections 12.14(b) (i, ii, iii, v, vi and vii) including operating expenditures, capital expenditure and saleable product profiles of the Material Properties, as provided and reviewed and modified where appropriate by SRK, are accurately incorporated into the FMs. SRK also duly acknowledge Exxaro's opinion that the remaining inputs to the FMs required in compliance with the Listings Requirements: Sections 12.14(b) (iv, vii, ix, xi, xii, xiii, xiv, xv, xvi, xvii and xviii) are accurately reflected in the FMs.

14.2 Limitations and Reliance on Information

14.2.1 Limitations

Kumba and Eyesizwe have agreed that, to the extent permitted by law, they will indemnify SRK and its employees and officers in respect of any liability suffered or incurred as a result of or in connection with the preparation of this report. This indemnity will not apply in respect of any gross negligence, wilful misconduct or breach of law. Kumba and Eyesizwe have also agreed to indemnify SRK and its employees and officers for time incurred and any costs in relation to any inquiry or proceeding initiated by any person except where SRK or its employees and officers are found liable for, or guilty of, gross negligence, wilful misconduct in which case SRK shall bear such costs.

Kumba and Eyesizwe have confirmed in writing to SRK that to their knowledge the information provided was complete and not incorrect, misleading or irrelevant in any material aspect. SRK has no reason to believe that any material facts have been withheld and Kumba and Eyesizwe have confirmed in writing that they believe they have provided all material information.

The achievability of LoM Plans, budgets and forecasts are neither warranted nor guaranteed by SRK. The forecasts as presented and discussed herein have been proposed by Kumba's and Eyesizwe's management and adjusted where appropriate by SRK and cannot be assured; they are necessarily based on economic assumptions, many of which are beyond the control of management. Future cash flows and profits derived from such forecasts are inherently uncertain and actual results may be significantly more or less favourable.

14.2.2 Reliance on Information

SRK believes that its opinion must be considered as a whole and that selecting portions of the analysis or factors considered by it, without considering all factors and analyses together, could create a misleading view of the process underlying the opinions presented in the CPR. The preparation of a CPR is a complex process and should not be subjected to partial analysis or summary.

SRK's Equity Value for Exxaro is effective at 1 January 2006 and is based on information provided by Kumba and Eyesizwe throughout the course of SRK's investigations, which in turn reflect various technical-economic conditions prevailing at the date of this report. In particular, the Equity Value is based on expectations regarding commodity prices and exchange rates prevailing at the date of this report. These and the underlying TEPs can change significantly over relatively short periods of time. Should these change materially the Equity Value could be materially different in these changed circumstances. Further, SRK has no obligation or undertaking to advise any person of any change in circumstances which comes to its attention after the date of this CPR or to review, revise or update the CPR or opinion.

14.3 Valuation Methodology

The valuation methodology for arriving at the Equity Value of Exxaro is based on the sum of the parts approach comprising the following:

- The Enterprise Value defined as the sum of the NPVs of Material Properties reflected therein;
- The value of Mineral Rights, Exploration Properties and non-LoM Mineral Resources; and
- Valuation Adjustments.

The sum of the Enterprise Values and the value of Mineral rights, Exploration Properties and non-LoM Mineral Resources is defined as the NAV of the Material Properties. The sum of the NAV of the Material Properties and the valuation adjustments is defined as the Equity Value of the Company.

14.4 Enterprise Value – Basis of Valuation

The Enterprise Values are based on the application of Discounted Cash Flow (“DCF”) techniques to the post-tax pre-finance cashflows represented by the FMs as developed for each Material Property. The FMs are based on the various LoM Plans, including the TEPs (Section 12).

In generating the FMs and deriving the Enterprise Values, SRK specifically have:

- Incorporated the macro-economic forecasts as reflected in Table 1.2 and Table 1.3;
- Incorporated the commodity price forecasts as reflected Section 13;
- Determined WACCs which reflect the countries in which the Material Properties are located and the currency of the FMs (Table 14.1);
- The discount rate used for projects is 16.2% (nominal), which includes a risk premium of 3.95% to reflect the higher risk associated with these projects;
- Relied upon Kumba and Eyesizwe for all accounting inputs as required for the generation of the FMs in respect of Taxation: Table 14.2 provides details of taxation input parameters used in the FMs;
- Relied upon Kumba and Eyesizwe to the extent that for all accounting inputs as required for the generation of the FMs in respect of the Net Movement in Working Capital. The opening balances used in the FMs are reflected in Table 14.3 and Table 14.4;
- Incorporated the royalty calculations as indicated in Table 12.1;
- Relied upon Kumba and Eyesizwe that the calculation of nominal cash flows is in accordance with the fiscal regime within which the Material Properties operate;
- Reported Enterprise Values for the Material Properties as at 1 January 2006 which are based on a DCF valuation of the post-tax pre-finance cash flows resulting from the FMs;
- Performed sensitivity analyses to ascertain the impact of discount factors, commodity prices, total working costs and capital expenditures;
- Excluded the impact of salvage value on cessation of mining operations;
- Excluded the impact of Secondary Taxation on Companies for the Assets.

Table 14.1 WACC Calculations for Material Properties Located in South Africa and Australia

Parameter	Units	South African Assets	Australian Assets
Assumptions			
Average tax rate	(%)	29.00%	30.00%
Inflation rate – long term	(%)	5.00%	2.25%
Debt as percentage of capital	(%)	30.00%	30.00%
Cost of Debt			
Pre-tax cost of debt – long term	(%)	10.00%	7.25%
Less: Tax shield	(%)	–2.90%	–2.20%
After-tax cost of debt	(%)	7.10%	5.05%
Cost of Equity			
Risk-free rate	(%)	7.70%	5.70%
Beta-weighted market risk premium			
– Equity market risk premium	(%)	5.00%	5.00%
– Beta		1.35	1.35
Cost of equity	(%)	14.45%	12.45%
Weighted Average Cost of Capital			
Debt (30.00%)	(%)	2.13%	1.51%
Equity (70.00%)	(%)	10.12%	8.72%
WACC (Nominal)	(%)	12.25%	10.23%

Table 14.2 Taxation Input Parameters as at 1 January 2006

Material Property	Assessed Loss (ZARm)	Unredeemed Capex (ZARm)	Corporate Taxation (%)
Sishen Mine			29
Thabazimbi Mine			29
Grootegeluk Mine			29
Leeuwpaan Mine			29
Tshikondeni Mine			29
Arnot Colliery			29
Matla Colliery			29
New Clydesdale Colliery			29
Twistdraai Colliery			29
Ticor	580		30
Ticor SA	1,219	819	29
Rosh Pinah	14		38
Zincor			29
Chifeng Phase II			
Glen Douglas			29
Kumba Ferroalloys			29

Table 14.3 Working Capital Input Parameters as at 1 January 2006: Opening Balances

Material Property	Units	Debtors	Creditors	Stores
Sishen Mine	(ZARm)	931.8	(353.0)	407.8
Thabazimbi Mine ⁽¹⁾	(ZARm)	69.3	(552.0)	103.0
Grootegeluk Mine	(ZARm)	188.2	(234.1)	85.6
Leeuwpaan Mine	(ZARm)	33.2	(31.0)	11.2
Tshikondeni Mine	(ZARm)	33.9	(33.0)	9.4
Arnot Colliery	(ZARm)	95.6	(76.9)	4.7
Matla Colliery	(ZARm)	76.7	(71.9)	12.7
New Clydesdale Colliery	(ZARm)	94.9	(37.7)	23.9
North Block Complex	(ZARm)	68.7	(25.7)	15.2
Tiwest JV	(ZARm)	350.1	(145.1)	238.9
Hillendale Mine, Fairbreeze Project, Block P	(ZARm)	59	(46)	311
Ticor Smelter	(ZARm)	148	(40)	64
Rosh Pinah	(ZARm)	36.5	(48.6)	81.0
Zincor	(ZARm)	146.0	(74.4)	155.0
Glen Douglas	(ZARm)	11.9	(13.7)	4.8
Kumba FerroAlloys	(ZARm)	1.9	(4.2)	2.4
Head Office and Other	(ZARm)	56.0	(313)	8

(1) Working capital number includes the Mittal Steel loan account.

Table 14.4 Working Capital Input Parameters as at 1 January 2006: Days

Material Property	Units	Debtors	Creditors	Stores
Sishen Mine	(days)	45	30	30
Thabazimbi Mine	(days)	30	45	60
Grootegeluk Mine	(days)	30	45	12
Leeuwpaan Mine	(days)	30	45	30
Tshikondeni Mine	(days)	30	30	12
Arnot Colliery	(days)	45	45	
Matla Colliery	(days)	45	45	
New Clydesdale Colliery	(days)	35	45	
North Block Complex	(days)	45	45	
Hillendale Mine, Fairbreeze Project, Block P	(days)	45	45	30
Ticor Smelter	(days)	60	30	30
Tiwest JV	(days)	120	90	30
Rosh Pinah	(days)	30	30	30
Zincor	(days)	36	55	40
Glen Douglas	(days)	30	30	
Kumba FerroAlloys	(days)	9	30	

14.5 Analysis of Operating Costs

Details on how the operating costs used in the FMs were derived is provided for the operating Material Properties in this section.

14.5.1 Iron Ore – Sishen Mine

The operating costs used in the FMs in Table 14.5 to Table 14.8 are based on the 2006 operating cost budget developed by Sishen Iron Ore during 2005. For each of the principal activities a number of cost elements are separated in terms of a fixed cost element and variable cost element. These fixed and variable cost elements are used to generate the forecast costs used in the FMs according to the tonnage hauled profile. The tonnage hauled profile includes ore and waste mining and stockpile re-handling. SRK has reviewed these costs and the calculations and incorporated a similar methodology in the FMs presented as part of this CPR. Due to the 2006 basis of the cost estimation and current elevated levels of certain consumables, notably diesel prices, these costs are considered to be conservatively estimated. SRK has made adjustments to the operating expenditures to reflect the following aspects:

- Adjusted the mining costs to account for the likely increase in costs associated with an increasing pit depth over the LoM Plan. The pit is scheduled to increase from some 80m below surface currently to some 430m according to the results of the mine design. SRK understand that Sishen is investigating improvements that would lead to lower costs than that assumed by SRK in the FMs. The projects and improvements currently considered include back-filling of exhausted open-pit areas, an increase in fleet size, and other mining methodologies for ore and waste transport;
- Excluded certain general and administrative items of a once off or project nature in the cost forecasts;
- Included a provision for closure cost based on the difference between the estimated final closure cost and the balance of the environmental Trust Fund;
- Included a provision for the likely terminal benefits to employees at the end of the LoM; and
- Included a small adjustment to reflect an increase in various tailings management actions recommended by SRK in this CPR.

14.5.2 Iron Ore – Sishen South Project

The operating costs used in the FMs in Table 14.9 and Table 14.10 are based on the operating costs developed by Kumba as presented in the June 2005 Feasibility Study document. The costs have generally been derived according to a zero-based estimation and have taken cognisance of the production profile and the likely physical changes in the operating parameters over the full period of the LoM Plan. SRK has reviewed these costs and the calculations and incorporated a similar methodology in the FMs presented as part of this CPR. SRK has not made any modification to the direct costs used in the FMs but has, however, made adjustments to the operating expenditures to reflect the following indirect costs:

- Included a provision for closure cost based on the difference between the estimated final closure cost and the balance of the environmental Trust Fund; and
- Included a provision for the likely terminal benefits to employees at the end of the LoM.

14.5.3 Iron Ore – Thabazimbi Mine

The operating costs used in the FM in Table 14.11 is based on the 2006 operating cost budget developed by Kumba during 2005. For each of the principal activities a number of cost elements are separated in terms of a fixed cost element and variable cost element. These fixed and variable cost elements are used to generate the forecasted costs used in the FMs according to the tonnage profile. SRK has reviewed these costs and the calculations and incorporated a similar methodology in the FMs presented as part of this CPR. SRK has however made certain adjustments to the operating expenditures to reflect the following aspects:

- Increased the operating costs for certain tailings management aspects by ZAR8.3 million over the LoM Plan;
- Included a provision for closure cost based on the difference between the estimated final closure cost and the balance of the environmental Trust Fund. SRK has increased environmental costs associated for closure by some ZAR22 million to that of the Kumba environmental costs; and
- Included a provision for the likely terminal benefits to employees at the end of the LoM.

14.5.4 Coal

The operating costs used in the FMs in Tables 14.12 to 14.29 for the coal assets are based on the historical and projected financial and operating numbers provided by Kumba and Eyesizwe. For each of the principal activities a number of cost elements are separated in terms of a fixed cost element and variable cost element

(Fixed Costs and Variable Production Costs in the FMs). These fixed and variable cost elements are used to generate the forecast costs used in the FMs according to the tonnage hauled profile. The tonnage hauled profile includes ore and waste mining and stockpile re-handling. SRK has reviewed these costs and the calculations and incorporated a similar methodology in the FMs presented as part of this CPR. Due to the 2006 basis of the cost estimation and current elevated levels of certain consumables, notably diesel prices, these costs are considered to be conservatively estimated.

14.5.5 Heavy Minerals, Base Metals and Industrial Minerals

The operating costs used in the FMs in Tables 14.30 to 14.33 for the heavy mineral assets, Tables 14.34 to 14.38 for the base metal assets and Tables 14.39 to 14.42 for the industrial mineral assets are based on the historical and projected financial and operating numbers provided by Kumba. For each of the principal activities a number of cost elements are separated in terms of a fixed cost element and variable cost element (Fixed Costs and Variable Production Costs (Operating Costs) in the FMs). These fixed and variable cost elements are used to generate the forecast costs used in the FMs according to the production profile.

14.6 Post-Tax – Pre-Finance Cash Flows

Tables 14.5 to 14.42 inclusive, present the post-tax pre-finance nominal cash flows for the Material Properties.

Note that these tables are not financial statements (Income Statements; Cash Flow Statements and Balance Sheet Statements) as may be customary for determining the consolidated cash flow positions for companies. Further, no account is taken of movements in working capital at the Company level, or deferrals of tax liabilities between accounting periods, as may be the case in the generation of such financial statements. The Material Properties valuations are derived from reported cash flows commencing 1 January 2006.

Table 14.6 Sishen Mine: FM in ZAR Nominal Terms (2019 to 2025) – Scenario I

STATISTIC	F. Year Project Year	Units	Totals LoM	2019	2020	2021	2022	2023	2024	2025
				14	15	16	17	18	19	20
Production										
Main Plant Headfeed	(Mt)		680	33.6	37.2	35.6	35.5	34.5	36.2	18.6
SEP Headfeed	(Mt)		341	21.7	21.7	21.7	21.4	18.6	17.9	9.9
Total Headfeed	(Mt)		1,021	55.2	58.9	57.2	56.9	53.1	54.1	28.5
Sales Volumes										
Main Plant	(Mt)		566	29.0	29.0	29.0	29.0	29.0	29.0	14.6
– Lump	(Mt)		287	14.7	14.7	14.7	14.7	14.7	14.7	7.4
– DR	(Mt)		34	1.7	1.7	1.7	1.7	1.7	1.7	0.9
– DRS	(Mt)		22	1.2	1.2	1.2	1.2	1.1	1.2	0.6
– CS	(Mt)		59	3.0	3.0	3.0	3.0	3.0	3.0	1.5
– Fine	(Mt)		164	8.4	8.4	8.4	8.4	8.4	8.4	4.2
SEP Plant	(Mt)		204	13.0	13.0	13.0	12.8	11.2	10.7	5.8
– Lump	(Mt)		123	7.8	7.8	7.8	7.7	6.7	6.4	3.5
– Fine	(Mt)		82	5.2	5.2	5.2	5.1	4.5	4.3	2.3
Total Sales	(Mt)		770	42.0	42.0	42.0	41.8	40.2	39.7	20.4
Financial – Nominal										
Turnover	(ZARm)		228,700	13,588	13,917	14,527	15,182	15,316	15,869	8,514
Total Working Costs	(ZARm)		(116,565)	(7,268)	(7,656)	(8,037)	(8,361)	(8,501)	(8,729)	(4,424)
Distribution Costs ⁽¹⁾	(ZARm)		(45,566)	(2,858)	(3,001)	(3,151)	(3,291)	(3,281)	(3,383)	(1,847)
Mining and Beneficiation Costs	(ZARm)		(68,233)	(4,227)	(4,478)	(4,699)	(4,867)	(5,045)	(5,119)	(2,411)
Royalties	(ZARm)		(3,273)	(215)	(218)	(228)	(238)	(241)	(250)	(133)
Inventory Adjustment	(ZARm)		507	32	41	41	35	66	23	(33)
Operating Profit	(ZARm)		112,136	6,321	6,261	6,490	6,821	6,815	7,140	4,090
Capital Expenditure	(ZARm)		(14,696)	(605)	(608)	(804)	(582)	(469)	(107)	
Net Change in Working Capital	(ZARm)		176	(66)	(71)	(88)	(44)	(89)	(12)	811
Tax Liability	(ZARm)		(28,212)	(1,657)	(1,639)	(1,649)	(1,809)	(1,840)	(2,040)	(1,186)
Scenario I										
Final Net Free Cash	(ZARm)		69,403	3,992	3,943	3,948	4,386	4,416	4,982	3,714
Final Net Free Cash – Real	(ZARm)		42,523	2,117	1,991	1,899	2,009	1,927	2,070	1,470

⁽¹⁾ Includes all costs incurred in getting the iron ore to the export terminals at the coast.

Table 14.10 Sishen South Project: FM in ZAR Nominal Terms (2019 to 2029)

STATISTIC	F. Year											2029
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Production	Totals	14	15	16	17	18	19	20	21	22	23	24
	LoM	3.0	3.0	3.1	3.1	3.3	3.4	3.1	2.8	2.7	2.7	1.1
Sales Volumes	Total Headfeed	(Mt)	65	3.0	3.1	3.1	3.4	3.1	2.8	2.7	2.7	1.1
	Main Plant	(Mt)	39	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.7
	– Lump	(Mt)	25	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.5
	– Fine	(Mt)	65	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.2
Financial – Nominal	Turnover	(ZARm)	22,579	1,032	1,097	1,151	1,211	1,270	1,335	1,393	1,460	638
	Total Working Costs	(ZARm)	(13,881)	(642)	(709)	(731)	(756)	(815)	(865)	(876)	(885)	(422)
	Distribution Costs ⁽¹⁾	(ZARm)	(6,480)	(299)	(330)	(347)	(364)	(382)	(401)	(421)	(442)	(193)
	Mining and Beneficiation Costs	(ZARm)	(7,092)	(328)	(363)	(368)	(375)	(415)	(445)	(435)	(422)	(220)
	Royalties	(ZARm)	(309)	(15)	(15)	(16)	(17)	(18)	(19)	(19)	(20)	(9)
	Operating Profit	(ZARm)	8,699	389	388	421	454	455	470	517	575	216
	Capital Expenditure	(ZARm)	(1,392)	(1)	(67)	(119)	(3)	(19)	(12)			
	Net Change in Working Capital	(ZARm)	(61)	(2)	2	(2)	(16)	(3)	(6)	(9)	(10)	(1)
	Tax Liability	(ZARm)	(2,128)	(112)	(93)	(87)	(131)	(127)	(133)	(150)	(170)	(63)
	Final Net Free Cash	(ZARm)	5,118	273	229	212	304	307	319	358	395	239
	Final Net Free Cash – Real	(ZARm)	2,503	145	110	97	133	128	126	135	145	78

⁽¹⁾ Includes all costs incurred in getting the iron ore to the export terminals at the coast.

Table 14.11 Thabazimbi Mine: FM in ZAR Nominal Terms (2006 to 2010)

STATISTIC	F. Year Project Year	Units	Totals LoM	2006 1	2007 2	2008 3	2009 4	2010 5
Production								
	Total Headfeed	(Mt)	14	3.0	3.0	3.0	3.0	2.4
Sales Volumes								
	Lump	(Mt)	5	1.1	1.1	1.1	1.1	0.8
	Fine	(Mt)	7	1.4	1.4	1.4	1.5	1.2
	Total Sales	(Mt)	12	2.5	2.5	2.5	2.5	2.0
Financial – Nominal								
	Net Revenue	(ZARm)	2,295	488	477	452	491	386
	Total Working Costs	(ZARm)	(1,618)	(358)	(331)	(306)	(337)	(285)
	Operating Profit	(ZARm)	678	131	146	146	154	101
	Capital Expenditure	(ZARm)	(73)	(28)	(22)	(19)	(4)	
	Net Change in Working Capital	(ZARm)	(350)	(66)	(72)	(77)	(100)	(34)
	Tax Liability	(ZARm)	(175)	(30)	(36)	(37)	(44)	(29)
	Final Net Free Cash	(ZARm)	80	7	16	13	7	37
	Final Net Free Cash – Real	(ZARm)	71	7	15	12	6	31

Table 14.17 Tshikondeni Mine: FM in ZAR Nominal Terms (2006 to 2014)

STATISTIC	Calendar Year Project Year	Units	Totals LoM	2006 1	2007 2	2008 3	2009 4	2010 5	2011 6	2012 7	2013 8	2014 9
Production												
Mining												
	RoM Ore Tonnage	(kt)	6,161	750.6	731.5	740.2	702.7	802.9	810.1	798.4	633.3	191.6
Processing												
	Feed Tonnage	(kt)	6,161	750.6	731.5	740.2	702.7	802.9	810.1	798.4	633.3	191.6
	Saleable Product Tonnage	(kt)	3,246	400.1	392.9	395.9	376.7	417.8	437.7	423.9	307.6	93.2
	Recovery	(%)	53	53	54	53	54	52	54	53	49	49
Sales												
	Coking Coal	(kt)	3,246	400	393	396	377	418	438	424	308	93
Financial – Nominal												
	Coking Coal	(ZARm)	3,077	311	312	327	340	373	397	409	394	214
	Total Revenue	(ZARm)	3,077	311	312	327	340	373	397	409	394	214
	Total Working Costs	(ZARm)	(2,515)	(253)	(253)	(266)	(279)	(306)	(324)	(338)	(330)	(165)
	Variable Production Costs	(ZARm)	(457)	(44)	(45)	(48)	(50)	(61)	(65)	(68)	(57)	(18)
	Fixed Costs	(ZARm)	(1,786)	(183)	(180)	(189)	(199)	(209)	(219)	(230)	(241)	(136)
	Distribution Costs and Royalties	(ZARm)	(272)	(26)	(27)	(29)	(30)	(36)	(40)	(40)	(32)	(11)
	Operating Profit	(ZARm)	562	58	59	60	61	67	73	70	64	49
	Capital Expenditure	(ZARm)	(235)	(55)	(35)	(28)	(32)	(50)	(35)	(3)	(1)	24
	Working Capital Movement	(ZARm)	10	(10)	3	(1)	(6)	(3)	(9)	(18)	(16)	(64)
	Tax liability	(ZARm)	(128)	(5)	(5)	(7)	(23)	(15)	(27)	(49)	(47)	9
	Final Net Free Cash	(ZARm)	210	(7)	22	24	23	15	27	49	47	9
Final Net Free Cash – Real		(ZARm)	166	(7)	21	22	20	12	21	37	33	6
	RoM Coal Mined	(ZAR/RoM-t)	359	337.6	329.0	326.4	342.6	313.6	313.4	316.3	370.5	582.4
	Saleable Coal Produced	(ZAR/sales-t)	693	633.4	612.6	610.4	639.0	602.6	580.0	595.8	762.7	1,196.9

Table 14.18 Arnot Colliery: FM in ZAR Nominal Terms⁽¹⁾ (2006 to 2018)

STATISTIC	Calendar Year Project Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Units	1	2	3	4	5	6	7	8	9	10	11	12	13
	Totals													
	LoM													
Production														
Mining														
	RoM Coal	(Mft)	70.3	5.2	5.2	5.2	5.4	5.7	5.7	5.7	5.7	5.7	5.7	3.8
Processing														
	Feed Tonnage	(Mft)	70.3	5.2	5.2	5.4	5.7	5.7	5.7	5.7	5.7	5.7	5.7	3.8
	Saleable Product Tonnage	(Mft)	67.1	5.0	5.0	5.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	3.6
	Recovery	(%)	95.4	95	95	95	95	95	95	95	95	95	95	95
Sales														
	Eskom Coal	(Mft)	67.1	5.0	5.0	5.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	3.6
Financial – Nominal														
	Eskom Coal	(ZARm)	7,689	475	442	460	499	544	571	599	629	661	742	570
	Total Revenue	(ZARm)	7,689	475 ⁽²⁾	442	460	499	544	571	599	629	661	742	570
	Total Working Costs	(ZARm)	(7,148)	(407)	(412)	(429)	(464)	(506)	(531)	(558)	(585)	(615)	(691)	(543)
	Variable Production Costs	(ZARm)	(6,821)	(391)	(396)	(412)	(446)	(486)	(511)	(536)	(563)	(591)	(656)	(523)
	Fixed Costs	(ZARm)	(327)	(16)	(16)	(17)	(18)	(20)	(20)	(21)	(22)	(24)	(35)	(20)
	Operating Profit	(ZARm)	541	68	30	31	35	38	40	42	44	46	51	27
	Working Capital Movement	(ZARm)	23	7	5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	18
	Tax Liability	(ZARm)	(157)	(20)	(9)	(9)	(10)	(11)	(12)	(12)	(13)	(13)	(15)	(8)
	Final Net Free Cash	(ZARm)	407	56	26	21	24	26	28	29	30	32	35	37
	Final Net Free Cash – Real	(ZARm)	310	56	25	19	20	21	22	22	22	22	22	21
Unit Production Cost (Real)														
	RoM Coal Mined	(ZAR/RoM-t)	74.9	77.8	75.0	74.3	73.7	73.5	73.5	73.4	73.4	73.4	74.9	79.2
	Saleable Coal Produced	(ZAR/sales-t)	78.5	81.5	78.6	77.9	77.2	77.0	77.0	76.9	76.9	76.9	78.5	83.0

⁽¹⁾ Capital Expenditure is undertaken by Eskom.

⁽²⁾ Includes a ZAR40m once-off cash injection for the Grootpan Reserves by Eskom.

Table 14.19 Matla Colliery: FM in ZAR Nominal Terms⁽¹⁾ (2006 to 2020)

STATISTIC	Calendar Year Project Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Units	Totals	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LoM																	
Production																	
Mining																	
	RoM Coal	(Mft)	297.3	13.5	14.0	13.8	13.9	13.9	13.9	13.8	14.3	14.7	14.5	14.6	14.6	14.3	
Sales																	
	Feed Tonnage	(Mft)	297.3	13.5	14.0	13.8	13.9	13.9	13.9	13.8	14.3	14.7	14.5	14.6	14.6	14.3	
	Saleable Product	(Mft)	289.8	13.1	13.7	13.4	13.6	13.5	13.6	13.5	13.9	14.3	14.1	14.2	14.3	14.0	
	Recovery	(%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	
Financial – Nominal																	
	Eskom Coal	(ZARm)	32,572	745	829	876	924	969	1,013	1,063	1,111	1,229	1,313	1,366	1,437	1,507	1,568
	Total Revenue	(ZARm)	32,572	745	829	876	924	969	1,013	1,063	1,111	1,229	1,313	1,366	1,437	1,507	1,568
	Total Working Costs	(ZARm)	(29,830)	(664)	(743)	(788)	(834)	(877)	(918)	(966)	(1,011)	(1,126)	(1,256)	(1,324)	(1,391)	(1,450)	
	Variable Production Costs	(ZARm)	(27,912)	(627)	(702)	(745)	(788)	(829)	(868)	(914)	(957)	(1,067)	(1,143)	(1,192)	(1,256)	(1,320)	(1,374)
	Fixed Costs	(ZARm)	(1,918)	(37)	(41)	(43)	(45)	(48)	(50)	(52)	(54)	(59)	(62)	(65)	(68)	(71)	(77)
	Operating Profit	(ZARm)	2,743	80	86	88	90	93	95	97	99	104	110	113	116	118	
	Working Capital Movement	(ZARm)	18	(4)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(3)	(2)	(1)	(2)	(1)	
	Tax Liability	(ZARm)	(795)	(23)	(24)	(25)	(26)	(27)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	
	Final Net Free Cash	(ZARm)	1,965	53	60	61	63	65	66	68	69	71	75	77	79	81	82
	Final Net Free Cash – Real	(ZARm)	1,077	53	54	53	52	51	49	48	47	46	45	44	43	42	
	Unit Production Cost (Real)	(ZAR/RoM-t)	59.6	49.3	48.7	48.1	49.4	49.2	49.4	49.3	49.4	50.8	50.7	50.5	50.4	51.1	

⁽¹⁾ Capital Expenditure is undertaken by Eskom.

Table 14.20 Matla Colliery: FM in ZAR Nominal Terms⁽¹⁾ (2021 to 2024)

STATISTIC	Calendar Year Project Year	Units	Totals LoM	2021 16	2022 17	2023 18	2024 19	2025 20	2026 21	2027 22	2028 23	2029 24	2030 25	2031 26
Production														
Mining														
	RoM Coal	(Mt)	297.3	10.6	10.5	10.6	10.5	10.7	10.7	8.4	5.0	3.4	3.4	2.1
Sales														
	Eskom Coal	(Mt)	297.3	10.6	10.5	10.6	10.5	10.7	10.7	8.4	5.0	3.4	3.4	2.1
	Saleable Product	(Mt)	289.8	10.4	10.2	10.3	10.2	10.4	10.4	8.2	4.9	3.3	3.3	2.1
	Recovery	(%)	98	98	98	98	98	98	98	98	98	98	98	98
Financial – Nominal														
	Eskom Coal	(ZARm)	32,572	1,313	1,510	1,591	1,655	1,779	1,893	1,730	1,235	1,143	1,027	972
	Total Revenue	(ZARm)	32,572	1,313	1,510	1,591	1,655	1,779	1,893	1,730	1,235	1,143	1,027	972
	Total Working Costs	(ZARm)	(29,830)	(1,211)	(1,406)	(1,483)	(1,547)	(1,666)	(1,777)	(1,613)	(1,115)	(1,020)	(902)	(844)
	Variable Production Costs	(ZARm)	(27,912)	(1,142)	(1,330)	(1,404)	(1,463)	(1,577)	(1,683)	(1,467)	(1,016)	(815)	(821)	(762)
	Fixed Costs	(ZARm)	(1,918)	(69)	(76)	(80)	(83)	(89)	(95)	(146)	(100)	(206)	(81)	(82)
	Operating Profit	(ZARm)	2,743	102	104	107	109	113	116	117	119	122	126	129
	Working Capital Movement	(ZARm)	18	6	(4)	(2)	(1)	(3)	(2)	4	8	3	(0)	31
	Tax Liability	(ZARm)	(795)	(30)	(30)	(31)	(32)	(33)	(34)	(34)	(35)	(36)	(36)	(37)
	Final Net Free Cash	(ZARm)	1,965	79	70	74	76	77	80	87	93	90	89	123
	Final Net Free Cash – Real	(ZARm)	1,077	38	32	32	32	31	30	31	32	29	27	36
	Unit Production Cost (Real)	(ZAR/RoM-t)	59.6	55	61	61	61	62	63	69	76	98	82	116

⁽¹⁾ Capital Expenditure is undertaken by Eskom.

Table 14.21 New Clydesdale Colliery: FM in ZAR Nominal Terms (2006 to 2012)

STATISTIC	Calendar Year Project Year	Units	Totals LoM	2006 1	2007 2	2008 3	2009 4	2010 5	2011 6	2012 7
Production										
Mining										
	RoM Underground	(Mt)	14.4	2.4	2.3	2.1	1.9	1.9	1.9	1.9
Processing										
	Feed Tonnage	(Mt)	14.4	2.4	2.3	2.1	1.9	1.9	1.9	1.9
	Saleable Product Tonnage	(Mt)	10.2	1.8	1.7	1.5	1.3	1.3	1.3	1.3
	Recovery	(%)	70.2	75	74	73	68	68	68	67
Sales										
	Export A grade	(Mt)	7.8	1.1	1.1	1.0	1.2	1.2	1.2	1.2
	Inland A grade	(Mt)	0.5				0.1	0.1	0.1	0.1
	Inland – other	(Mt)	1.9	0.7	0.7	0.5				
	Total	(Mt)	10.2	1.8	1.7	1.5	1.3	1.3	1.3	1.3
Financial – Nominal										
	Export A grade	(ZARm)	2,567	329	335	285	344	405	424	444
	Inland A grade	(ZARm)	125				30	31	33	31
	Inland – other	(ZARm)	271	92	98	81				
	Total Revenue	(ZARm)	2,963	421	433	366	373	437	457	475
	Total Working Costs	(ZARm)	(1,819)	(293)	(287)	(248)	(221)	(239)	(267)	(265)
	Variable Production Costs	(ZARm)	(1,761)	(284)	(278)	(240)	(214)	(231)	(259)	(256)
	Fixed Costs	(ZARm)	(58)	(9)	(9)	(8)	(7)	(8)	(9)	(9)
	Operating Profit	(ZARm)	1,144	128	147	118	153	198	190	210
	Capital Expenditure	(ZARm)	(151)	(24)	(58)	(18)	(16)	(20)	(7)	(7)
	Working Capital Movement	(ZARm)	81	73	(2)	2	(3)	(4)	1	14
	Tax Liability	(ZARm)	(233)	(30)	(16)	(36)	(57)	(52)	(24)	(17)
Final Net Free Cash		(ZARm)	842	147	71	67	77	121	160	199
Final Net Free Cash – Real		(ZARm)	715	147	68	61	67	100	126	148
Unit Production Cost (Real)										
	RoM Coal Mined	(ZAR/RoM-t)	19.1	121.7	116.5	109.1	100.5	103.6	110.3	104.1
	Saleable Coal Produced	(ZAR/sales-t)	27.3	163.0	156.9	148.7	148.9	153.4	163.4	155.7

Table 14.22 North Block Complex: FM in ZAR Nominal Terms (2006 to 2012)

STATISTIC	Calendar Year Project Year	Units	Totals LoM	2006 1	2007 2	2008 3	2009 4	2010 5	2011 6
Production									
Mining									
	RoM Coal Underground	(Mt)	0.4	0.3	0.1				
	RoM Coal Opencast	(Mt)	7.5	1.9	1.9	1.0	1.0	1.0	0.7
Processing									
	Feed Tonnage	(Mt)	7.9	2.2	1.9	1.0	1.0	1.0	0.7
	Saleable Product Tonnage	(Mt)	7.6	2.1	1.8	1.0	1.0	1.0	0.7
	Recovery	(%)	98	96	95	97	100	100	100
Sales									
	Metallurgical Coal	(Mt)	0.7	0.3	0.4				
	Eskom Coal	(Mt)	6.9	1.8	1.5	0.9	1.0	1.0	0.7
	Total	(Mt)	7.6	2.1	1.8	1.0	1.0	1.0	0.7
Financial – Nominal									
	Metallurgical Coal	(ZARm)	58	24	26	9			
	Eskom Coal	(ZARm)	647	155	141	84	93	98	76
	Total Revenue	(ZARm)	705	179	167	93	93	98	76
	Total Working Costs	(ZARm)	(602)	(149)	(135)	(89)	(77)	(81)	(72)
	Variable Production Costs	(ZARm)	(587)	(145)	(131)	(87)	(75)	(79)	(70)
	Fixed Costs	(ZARm)	(15)	(4)	(4)	(2)	(2)	(2)	(2)
	Operating Profit	(ZARm)	103	30	32	3	17	17	4
	Capital Expenditure	(ZARm)	(36)	(7)	(7)	(4)	(4)	(14)	
	Working Capital Movement	(ZARm)	58	52		4	(1)		4
	Tax Liability	(ZARm)	(17)	(4)	(7)		(3)	(1)	(1)
	Final Net Free Cash	(ZARm)	108	70	18	3	8	2	7
Final Net Free Cash – Real		(ZARm)	104	70	17	3	7	2	5
Unit Production Cost (Real)									
	RoM Coal Mined	(ZAR/RoM-t)	10.1	68.1	66.1	81.1	66.6	66.9	76.3
	Saleable Coal Produced	(ZAR/sales-t)	10.3	71.1	69.5	83.7	66.6	66.9	76.3

Table 14.23 Sintel Char Project: FM in ZAR Nominal Terms (2006 to 2025)

STATISTIC	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Calendar Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Project Year	LoM																			
Processing																				
Feed Tonnage		46.8	180.7	210.4	210.8	210.0	210.4	210.1	209.8	210.1	211.5	212.1	212.0	212.0	212.2	211.9	211.5	210.1	211.0	211.0
Saleable Product Tonnage	(kt)	3,814.6																		
Recovery (%)		71	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Sales																				
Lumpy Char Char (.20mm)	(kt)	2,506.2	30.8	118.7	138.2	138.5	137.9	138.3	137.9	138.1	138.9	139.4	139.3	139.3	139.4	139.3	139.0	138.0	138.6	138.6
	(kt)	202.1	2.5	9.6	11.1	11.2	11.1	11.1	11.1	11.1	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.1	11.2	11.2
Financial – Nominal																				
Lumpy Char Char (.20mm)	(ZARm)	4,754	36	144	176	186	194	204	214	225	236	250	263	276	290	304	319	334	349	368
Total Revenue	(ZARm)	310	2	9	12	12	13	13	14	15	15	16	17	18	19	20	21	22	23	24
Total Working Costs	(ZARm)	5,064	38	154	188	198	207	218	228	239	252	266	280	294	308	324	340	356	372	392
Operating Profit	(ZARm)	(3,237)	(3)	(109)	(119)	(125)	(131)	(138)	(145)	(152)	(160)	(168)	(176)	(185)	(195)	(204)	(214)	(225)	(236)	(248)
Capital Expenditure	(ZARm)	1,827	(3)	45	69	72	75	80	83	87	92	98	103	108	114	120	126	131	135	144
Working Capital Movement	(ZARm)	(211)	(93)	(16)	(4)	(1)	(1)	(3)	(3)	(1)	(1)	(4)	(4)	(1)	(2)	(1)	(1)	(5)	(5)	(2)
Tax Liability	(ZARm)	(34)	8	(14)	(4)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(2)
Final Net Free Cash	(ZARm)	(468)	(78)	14	65	72	53	54	56	61	64	68	70	73	79	84	88	89	91	100
Final Net Free Cash – Real	(ZARm)	1,113	(89)	13	56	59	41	40	40	41	41	42	41	41	42	42	42	41	40	42
Unit Production Cost (Real) Saleable Coal	(ZAR/sales-t)	580	(89)	772	687	689	691	689	690	691	690	687	685	686	686	685	686	687	690	688
Produced		674	1,006																	

Table 14.24 Inyanda Project: FM in ZAR Nominal Terms (2006 to 2018)

STATISTIC	Calendar Year Project Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
	Units	Totals	LoM	1	2	3	4	5	6	7	8	9	10	11	12	13
Production																
Mining																
RoM Coal Openpit ("to")	(Mt)	14.6	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.1	
Waste Removed ("tw")	(Mt)	66.5	4.1	4.7	5.5	6.3	7.2	7.5	7.5	6.9	6.2	5.9	4.5	4.5	4.1	
Stripping Ratio	(tw : to)	4.5	4.2	3.5	4.0	4.6	5.0	5.2	5.4	4.9	4.5	4.3	4.3	4.3	4.1	
Processing																
Feed Tonnage	(Mt)	14.6	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.1	
Export Product Tonnage	(Mt)	10.4	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.1
Recovery	(%)	71	66.9	73.3	73.1	72.7	69.3	68.6	71.0	70.3	72.3	73.1	73.1	73.1	70.7	
Sales																
Export Steam Coal	(Mt)	10.4	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	0.1
Financial – Nominal																
Export Steam Coal	(ZARm)	4,213	245	363	327	348	364	380	391	417	436	457	460	460	25	
Total Revenue	(ZARm)	4,213	245	363	327	348	364	380	391	417	436	457	460	460	25	
Total Working Costs	(ZARm)	(2,338)	(122)	(183)	(189)	(197)	(217)	(223)	(227)	(231)	(245)	(253)	(241)	(9)		
Operating Profit	(ZARm)	1,875	123	180	137	151	147	157	164	186	191	203	219	219	16	
Capital Expenditure	(ZARm)	(275)	(46)	(14)	(18)	(17)	(10)	(5)	(1)	(2)	(2)	(2)	(2)	(2)	40	
Working Capital Movement	(ZARm)	(459)	(6)	(25)	3	(2)	(2)	(2)	(47)	(53)	(55)	(58)	(63)	(5)		
Tax Liability	(ZARm)	(459)	(22)	(22)	(34)	(39)	(39)	(43)	(47)	(53)	(55)	(58)	(63)	(5)		
Final Net Free Cash	(ZARm)	1,141	(48)	120	89	94	96	106	116	130	135	143	155	155	56	
Final Net Free Cash – Real	(ZARm)	761	(46)	108	77	77	75	79	82	88	87	88	91	91	31	

Table 14.27 Belfast Project: FM in ZAR Nominal Terms (2006 to 2020)

STATISTIC	Calendar Year Project Year	Units	Totals LoM	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Mining	RoM Coal Openpit	(Mt)	26			0.3	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	RoM Coal Underground	(Mt)	17			0.3	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	Total RoM	(Mt)	43			0.3	0.8	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Processing	Feed Tonnage	(Mt)	43			0.3	0.8	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
	Washed Coal	(Mt)	26			0.1	0.4	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
	Eskom Tonnage Recovery	(Mt) (%)	16 96			0.1 96.0	0.3 96.0	0.6 95.9	0.7 95.9	0.7 95.9	0.7 95.9	0.7 95.9	0.7 95.9	0.7 95.9	0.7 95.9	0.7 95.9	0.7 95.9	0.7 95.9	
Sales	Washed Coal	(Mt)	26			0.1	0.4	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
	Eskom Tonnage	(Mt)	16			0.1	0.3	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
	Total	(Mt)	41			0.2	0.7	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	
Financial– Nominal	Washed Coal	(ZARm)	12,702			43	122	301	360	378	396	414	434	455	476	499	524	549	
	Eskom Tonnage	(ZARm)	2,312			7	22	54	65	68	71	75	78	82	86	91	95	100	
	Total Revenue	(ZARm)	15,014			50	144	355	425	445	467	488	512	537	563	590	619	649	
	Total Working Costs	(ZARm)	(11,645)			(43)	(117)	(275)	(328)	(344)	(360)	(378)	(396)	(415)	(435)	(456)	(479)	(502)	
	Operating Profit	(ZARm)	3,370			7	27	80	97	101	106	111	116	122	128	134	140	147	
	Capital Expenditure	(ZARm)	(254)			(134)	(4)	(4)	(5)	(5)	(5)	(5)	(5)	(6)	(6)	(7)	(7)	(7)	
	Working Capital Movement	(ZARm)	(6)			(3)	(5)	(11)	(4)	(4)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
	Tax Liability	(ZARm)	(715)			(3)	(5)	(11)	(26)	(21)	(23)	(23)	(23)	(25)	(26)	(28)	(30)	(31)	
	Final Net Free Cash	(ZARm)	2,394			(130)	18	65	63	74	78	81	85	89	93	98	102	107	
	Final Net Free Cash– Real	(ZARm)	1,058			(118)	16	53	49	55	55	55	55	55	55	54	54	54	54

Table 14.29 Ingcambu Project: FM in ZAR Nominal Terms (2006)

STATISTIC	Calendar Year Project Year	Units	Totals LoM	2006 1
Mining				
	C Upper Opencast	(kt)	206	205.5
	C Lower Opencast	(kt)	121	121.1
	C Lower Underground	(kt)	370	370.0
	Total RoM	(kt)	697	696.6
Processing				
	Feed Tonnage	(kt)	697	696.6
	Export Product Tonnage	(kt)	246	245.5
	Eskom Middling Tonnage	(kt)	371	371.5
	Recovery	(%)	89	89
Sales				
	Export Steam Coal	(kt)	246	246
	Eskom Middling Coal	(kt)	371	371
	Total	(kt)	617	617
Financial– Nominal				
	Export Steam Coal	(ZARm)	75	75
	Eskom Middling Coal	(ZARm)	17	17
	Total Revenue	(ZARm)	92	92
	Total Working Costs	(ZARm)	(81)	(81)
	Operating Profit	(ZARm)	11	11
	Capital Expenditure	(ZARm)		
	Working capital movement	(ZARm)	1	1
	Tax Liability	(ZARm)		
	Final Net Free Cash	(ZARm)	12	12

Table 14.34 Rosh Pinah: FM in ZAR Nominal Terms (2006 to 2010)

STATISTIC	Calendar Year Project Year	Units	Totals LoM	2006 1	2007 2	2008 3	2009 4	2010 5
Production								
RoM Ore Tonnage		(kt)	3,447	775	775	770	781	346
Development		(km)	10	3	3	3		
Processing								
Feed Tonnage		(kt)	3,447	775	775	770	781	346
% Zinc Feed		(%)	10	11	11	10	10	8
% Lead In Feed		(%)	3	2	3	3	2	4
Recovery Zinc to Concentrate		(%)	86	86	86	86	84	86
Recovery Lead to Concentrate		(%)	75	75	75	75	75	75
Zinc Metal in Concentrate		(kt)	346	68	75	72	65	67
Lead Metal in Concentrate		(kt)	79	17	13	19	15	14
% Zinc in Concentrate		(%)	54	54	54	54	54	54
% Lead in Concentrate		(%)	55	55	55	55	55	55
Sales								
Zinc Metal in Concentrate		(kt)	346	75	72	65	67	25
Lead Metal in Concentrate		(kt)	79	13	19	15	14	9
% Zinc in Concentrate		(kt)	54	54	54	54	54	54
% Lead in Concentrate		(kt)	55	55	55	55	55	55
Financial – Nominal								
Total Revenue		(NADm)	2,832	798	842	497	493	202
Total Working Costs		(NADm)	(1,547)	(307)	(322)	(323)	(342)	(255)
Distribution Costs		(NADm)	1,085	(75)	(79)	(75)	(82)	(33)
Variable Production Costs		(NADm)	(36)	(88)	(91)	(89)	(91)	(39)
Fixed Costs		(NADm)	69	(124)	(130)	(136)	(143)	(152)
Other Costs		(NADm)	(404)	(20)	(22)	(22)	(26)	(30)
Royalties		(NADm)	(200)	(58)	(61)	(34)	(33)	(14)
Operating Profit		(NADm)	1,085	433	459	140	118	(66)
Capital Expenditure		(NADm)	(36)	(11)	(12)	(12)		
Working Capital Movement		(NADm)	69	(18)	(5)	27	(5)	70
Tax Liability		(NADm)	(404)	(129)	(173)	(54)	(48)	
Final Net Free Cash		(NADm)	714	275	268	101	66	4
Final Net Free Cash – Real		(NADm)	682	275	255	91	57	4

Table 14.42 Kumba FerroAlloys: FM in ZAR Nominal Terms (2021 to 2035)

STATISTIC	Calendar Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035		
Project Year	Units	LoM	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Sales Volume	Coarse	120	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	4.01	
	Fine	69	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	
	Super Fine	3	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	
Financial – Nominal	Coarse	2,010	63	66	69	73	76	80	84	88	93	98	102	108	113	119	124	
	Fine	1,235	39	41	43	45	47	49	52	54	57	60	63	66	69	73	76	
	Super Fine	50	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	
	Total Revenue	3,295	103	108	114	119	125	131	138	145	152	160	168	176	185	194	204	
	Total Working Costs	(2,493)	(76)	(80)	(84)	(88)	(93)	(97)	(102)	(107)	(113)	(118)	(124)	(131)	(137)	(144)	(201)	
	Variable Production Costs	(1,414)	(44)	(46)	(49)	(51)	(54)	(56)	(59)	(62)	(65)	(69)	(72)	(76)	(79)	(83)	(88)	
	Fixed Costs	(1,080)	(32)	(34)	(35)	(37)	(39)	(41)	(43)	(45)	(47)	(50)	(52)	(55)	(58)	(61)	(114)	
	Operating Profit	802	27	28	29	31	32	34	36	38	39	41	43	46	48	50	50	3
	Capital Expenditure	(107)	(3)	(4)	(4)	(4)	(4)	(4)	(4)	(5)	(5)	(5)	(6)	(6)	(6)	(6)	(7)	
	Working Capital Movement	0.1																4
Tax Liability	(249)	(8)	(8)	(9)	(9)	(9)	(10)	(10)	(11)	(11)	(12)	(13)	(13)	(14)	(15)	(15)		
Final Net Free Cash	446	15	16	17	18	19	20	21	22	23	24	25	26	28	29	(15)		
Final Net Free Cash – Real	210	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	(4)	

14.7 Enterprise Value – Net Present Values and Sensitivities

The following section presents the NPVs of the nominal cash flow as derived from the FMs for each Material Property and the consolidated summary for the Company.

The various NPV tables include the following:

- NPVs at a range of discount factors in relation to the Mining Asset specific WACC;
- NPV sensitivity to discount factors based on percentage variance of the Mining Asset specific WACC;
- NPV sensitivity to sales revenue, total working costs and capital expenditure derived from single parameter sensitivity analysis at the Mining Asset specific WACC; and
- NPV sensitivity to sales revenue and total working costs derived from twin parameter sensitivity at the Mining Asset specific WACC.

In addition to the above IRR sensitivities to sales revenue and total working costs has also been derived for certain of the projects associated with the Material Properties.

14.7.1 Sishen Mine

Table 14.43 Sishen Mine: NPV at Various Discount Factors – Scenario I

Discount Factor (%)	NPV (ZARm)
3.00%	51,692
6.00%	37,935
9.00%	28,820
12.25%	22,170
15.00%	18,218
18.00%	15,054
21.00%	12,709

Table 14.44 Sishen Mine: NPV Sensitivity to WACC – Scenario I

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20.00%	9.80%	26,930
-15.00%	10.41%	25,605
-10.00%	11.02%	24,375
- 5.00%	11.63%	23,233
0.00%	12.25%	22,170
5.00%	12.86%	21,181
10.00%	13.47%	20,258
15.00%	14.08%	19,397
20.00%	14.69%	18,593

Table 14.45 Sishen Mine: Single Parameter NPV Sensitivity at the WACC – Scenario I

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Total Working Cost	-15%	-10%	-5%	0%	5%	10%	15%
Sensitivity Range – Capital Expenditure	-15%	-10%	-5%	0%	5%	10%	15%
	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)
Revenue	(2,216)	5,608	13,504	22,170	31,613	41,832	52,828
Total Working Cost	25,865	24,633	23,402	22,170	20,939	19,707	18,476
Capital Expenditure	23,252	22,891	22,531	22,170	21,810	21,449	21,089

Table 14.46 Sishen Mine: Twin Parameter NPV Sensitivity at the WACC (Revenue, Working Costs) – Scenario I

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Total Working Costs Sensitivity	-15%	2,111	9,308	17,198	25,865	35,308	45,527	56,522
	-10%	786	8,076	15,967	24,633	34,076	44,295	55,291
	-5%	(589)	6,843	14,735	23,402	32,845	43,064	54,059
	0%	(2,216)	5,608	13,504	22,170	31,613	41,832	52,828
	5%	(3,951)	4,365	12,272	20,939	30,382	40,601	51,596
	10%	(5,686)	3,122	11,041	19,707	29,150	39,369	50,365
	15%	(7,420)	1,868	9,809	18,476	27,919	38,138	49,133

Table 14.47 Sishen Mine: Twin Parameter NPV Sensitivity at the WACC (Revenue, Capital Expenditure) – Scenario I

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Capital Expenditure	-15%	(1,135)	6,689	14,585	23,252	32,695	42,914	53,909
	-10%	(1,495)	6,329	14,225	22,891	32,334	42,553	53,549
	-5%	(1,856)	5,968	13,864	22,531	31,974	42,193	53,188
	0%	(2,216)	5,608	13,504	22,170	31,613	41,832	52,828
	5%	(2,577)	5,247	13,143	21,810	31,253	41,472	52,467
	10%	(2,937)	4,887	12,783	21,449	30,892	41,111	52,107
	15%	(3,298)	4,526	12,422	21,089	30,532	40,751	51,746

Table 14.48 Sishen Mine: NPV at Various Discount Factors – Scenario II

Discount Factor (%)	NPV (ZARm)
3.00%	58,682
6.00%	41,583
9.00%	30,762
12.25%	23,171
15.00%	18,798
18.00%	15,380
21.00%	12,894

Table 14.49 Sishen Mine: NPV Sensitivity to WACC – Scenario II

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20.00%	9.80%	28,576
-15.00%	10.41%	27,057
-10.00%	11.02%	25,657
- 5.00%	11.63%	24,365
0.00%	12.25%	23,171
5.00%	12.86%	22,066
10.00%	13.47%	21,042
15.00%	14.08%	20,091
20.00%	14.69%	19,208

Table 14.59 Sishen South Project: Twin Parameter IRR sensitivity (Revenue, Capital Expenditure)

IRR (%)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Capital Expenditure	-15%	7.43%	18.76%	27.65%	35.78%	43.57%	51.15%	58.58%
	-10%	6.31%	17.25%	25.66%	33.30%	40.56%	47.61%	54.51%
	-5%	5.31%	15.90%	23.93%	31.14%	37.96%	44.56%	51.01%
	0%	4.39%	14.71%	22.40%	29.24%	35.69%	41.91%	47.97%
	5%	3.55%	13.63%	21.03%	27.56%	33.68%	39.57%	45.30%
	10%	2.78%	12.65%	19.79%	26.05%	31.89%	37.49%	42.93%
	15%	2.07%	11.75%	18.67%	24.69%	30.28%	35.63%	40.81%

14.7.3 Thabazimbi Mine

Table 14.60 Thabazimbi Mine: NPV at Various Discount Factors

Discount Factor (%)	NPV (ZARm)
6.00%	72
8.00%	65
12.00%	59
12.25%	53
14.00%	49
18.00%	45
20.00%	41

Table 14.61 Thabazimbi Mine: NPV Sensitivity to WACC

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20.00%	9.80%	57
-15.00%	10.41%	56
-10.00%	11.02%	55
- 5.00%	11.63%	54
0.00%	12.25%	53
5.00%	12.86%	52
10.00%	13.47%	51
15.00%	14.08%	50
20.00%	14.69%	49

Table 14.62 Thabazimbi Mine: Single Parameter NPV Sensitivity at the WACC

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Total Working Cost	-15%	-10%	-5%	0%	5%	10%	15%
Sensitivity Range – Capital Expenditure	-15%	-10%	-5%	0%	5%	10%	15%
	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)
Revenue	(290)	(175)	(61)	53	168	282	396
Total Working Cost	178	136	95	53	12	(30)	(71)
Capital Expenditure	57	56	55	53	52	51	49

Table 14.67 Grootegeluk Mine: Single Parameter NPV Sensitivity at the WACC – Scenario I

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Total Working Cost	-15%	-10%	-5%	0%	5%	10%	15%
Sensitivity Range – Capital Expenditure	-15%	-10%	-5%	0%	5%	10%	15%
	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)
Revenue	(520)	1,566	3,651	5,736	7,822	9,907	11,993
Total Working Cost	7,358	6,817	6,277	5,736	5,196	4,656	4,115
Capital Expenditure	5,994	5,908	5,822	5,736	5,651	5,565	5,479

Table 14.68 Grootegeluk Mine: Twin Parameter NPV Sensitivity at the WACC (Revenue, Working Costs) – Scenario I

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Total Working Costs Sensitivity	-15%	1,101	3,187	5,272	7,358	9,443	11,529	13,614
	-10%	561	2,646	4,732	6,817	8,903	10,988	13,074
	-5%	21	2,106	4,191	6,277	8,362	10,448	12,533
	0%	(520)	1,566	3,651	5,736	7,822	9,907	11,993
	5%	(1,060)	1,025	3,111	5,196	7,282	9,367	11,452
	10%	(1,601)	485	2,570	4,656	6,741	8,827	10,912
	15%	(2,141)	(56)	2,030	4,115	6,201	8,286	10,372

Table 14.69 Grootegeluk Mine: Twin Parameter NPV Sensitivity at the WACC (Revenue, Capital Expenditure) – Scenario I

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Capital Expenditure	-15%	(263)	1,823	3,908	5,994	8,079	10,165	12,250
	-10%	(348)	1,737	3,823	5,908	7,993	10,079	12,164
	-5%	(434)	1,651	3,737	5,822	7,908	9,993	12,079
	0%	(520)	1,566	3,651	5,736	7,822	9,907	11,993
	5%	(606)	1,480	3,565	5,651	7,736	9,822	11,907
	10%	(691)	1,394	3,480	5,565	7,650	9,736	11,821
	15%	(777)	1,308	3,394	5,479	7,565	9,650	11,736

Table 14.70 Grootegeluk Mine: NPV at Various Discount Factors – Scenario II

Discount Factor (%)	NPV (ZARm)
3.00%	34,206
6.00%	18,660
9.00%	11,428
12.25%	7,500
15.00%	5,634
18.00%	4,358
21.00%	3,519

14.7.6 Tshikondeni Mine

Table 14.80 Tshikondeni Mine: NPV at Various Discount Factors

Discount Factor (%)	NPV (ZARm)
3.00%	176
6.00%	150
9.00%	128
12.25%	109
15.00%	95
18.00%	83
21.00%	73

Table 14.81 Tshikondeni Mine: NPV Sensitivity to WACC

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20.00%	9.80%	123
-15.00%	10.41%	119
-10.00%	11.02%	115
- 5.00%	11.63%	112
0.00%	12.25%	109
5.00%	12.86%	106
10.00%	13.47%	103
15.00%	14.08%	100
20.00%	14.69%	97

Table 14.82 Tshikondeni Mine: Single Parameter NPV Sensitivity at the WACC

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Total Working Cost	-15%	-10%	-5%	0%	5%	10%	15%
Sensitivity Range – Capital Expenditure	-15%	-10%	-5%	0%	5%	10%	15%
	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)
Revenue	(429)	(250)	(70)	109	288	467	646
Total Working Cost	328	255	182	109	36	(38)	(111)
Capital Expenditure	133	125	117	109	101	93	84

Table 14.83 Tshikondeni Mine: Twin Parameter NPV Sensitivity at the WACC (Revenue, Working Costs)

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Total	-15%	(209)	(30)	149	328	507	687	866
	-10%	(282)	(103)	76	255	434	613	793
Working	-5%	(356)	(176)	3	182	361	540	719
	0%	(429)	(250)	(70)	109	288	467	646
Costs	5%	(502)	(323)	(144)	36	215	394	573
	10%	(575)	(396)	(217)	(38)	142	321	500
	15%	(648)	(469)	(290)	(111)	68	247	427

14.7.8 Matla Colliery

Table 14.89 Matla Colliery: NPV at Various Discount Factors

Discount Factor (%)	NPV (ZARm)
3.00%	1,304
6.00%	918
9.00%	681
12.25%	517
15.00%	424
18.00%	351
21.00%	298

Table 14.90 Matla Colliery: NPV Sensitivity to WACC

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20.00%	9.80%	633
-15.00%	10.41%	601
-10.00%	11.02%	571
- 5.00%	11.63%	543
0.00%	12.25%	517
5.00%	12.86%	494
10.00%	13.47%	472
15.00%	14.08%	452
20.00%	14.69%	433

Table 14.91 Matla Colliery: Single Parameter NPV Sensitivity at the WACC

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Total Working Cost	-15%	-10%	-5%	0%	5%	10%	15%
Sensitivity Range – Capital Expenditure	-15%	-10%	-5%	0%	5%	10%	15%
	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)
Revenue	(1,948)	(1,126)	(305)	517	1,339	2,161	2,983
Total Working Cost	1,639	1,265	891	517	143	(230)	(604)

Capital expenditure costs are borne by Eskom.

Table 14.92 Matla Colliery: Twin Parameter NPV Sensitivity at the WACC (Revenue, Working Costs)

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Total Working Costs Sensitivity	-15%	(827)	(5)	817	1,639	2,461	3,282	4,104
	-10%	(1,200)	(379)	443	1,265	2,087	2,909	3,730
	-5%	(1,574)	(753)	69	891	1,713	2,535	3,357
	0%	(1,948)	(1,126)	(305)	517	1,339	2,161	2,983
	5%	(2,322)	(1,500)	(678)	143	965	1,787	2,609
	10%	(2,696)	(1,874)	(1,052)	(230)	591	1,413	2,235
	15%	(3,070)	(2,248)	(1,426)	(604)	218	1,039	1,861

14.7.9 New Clydesdale Colliery

Table 14.93 New Clydesdale Colliery: NPV at Various Discount Factors

Discount Factor (%)	NPV (ZARm)
3.00%	739
6.00%	655
9.00%	584
12.25%	520
15.00%	474
18.00%	431
21.00%	394

Table 14.94 New Clydesdale Colliery: NPV Sensitivity to WACC

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20.00%	9.80%	567
-15.00%	10.41%	554
-10.00%	11.03%	542
- 5.00%	11.64%	531
0.00%	12.25%	520
5.00%	12.86%	509
10.00%	13.48%	498
15.00%	14.09%	488
20.00%	14.70%	478

Table 14.95 New Clydesdale Colliery: Single Parameter NPV Sensitivity at the WACC

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Total Working Cost	-15%	-10%	-5%	0%	5%	10%	15%
Sensitivity Range – Capital Expenditure	-15%	-10%	-5%	0%	5%	10%	15%
	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)
Revenue	(50)	140	330	520	709	899	1,089
Total Working Cost	698	638	579	520	460	401	341
Capital Expenditure	536	530	525	520	514	509	503

Table 14.96 New Clydesdale Colliery: Twin Parameter NPV Sensitivity at the WACC (Revenue, Working Costs)

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Total Working Costs Sensitivity	-15%	128	318	508	698	888	1,077	1,267
	-10%	69	259	448	638	828	1,018	1,208
	-5%	9	199	389	579	769	959	1,149
	0%	(50)	140	330	520	709	899	1,089
	5%	(109)	80	270	460	650	840	1,030
	10%	(169)	21	211	401	591	780	970
	15%	(228)	(38)	151	341	531	721	911

Table 14.97 New Clydesdale Colliery: Twin Parameter NPV Sensitivity at the WACC (Revenue, Capital Expenditure)

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Capital Expenditure	-15%	(34)	156	346	536	726	916	1,105
	-10%	(39)	151	341	530	720	910	1,100
	-5%	(45)	145	335	525	715	905	1,095
	0%	(50)	140	330	520	709	899	1,089
	5%	(55)	134	324	514	704	894	1,084
	10%	(61)	129	319	509	699	888	1,078
	15%	(66)	124	313	503	693	883	1,073

14.7.10 North Block Complex

Table 14.98 North Block Complex: NPV at Various Discount Factors

Discount Factor (%)	NPV (ZARm)
3.00%	102
6.00%	97
9.00%	93
12.25%	89
15.00%	85
18.00%	82
21.00%	79

Table 14.99 North Block Complex: NPV Sensitivity to WACC

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20.00%	9.80%	92
-15.00%	10.41%	91
-10.00%	11.02%	90
- 5.00%	11.63%	89
0.00%	12.25%	89
5.00%	12.86%	88
10.00%	13.47%	87
15.00%	14.08%	86
20.00%	14.69%	86

Table 14.100 North Block Complex: Single Parameter NPV Sensitivity at the WACC

Sensitivity Range – Revenue	-30%	-20%	-10%	0%	10%	20%	30%
Sensitivity Range – Total Working Cost	-15%	-10%	-5%	0%	5%	10%	15%
Sensitivity Range – Capital Expenditure	-15%	-10%	-5%	0%	5%	10%	15%
	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)	(ZARm)
Revenue	(64)	(13)	38	89	139	190	241
Total Working Cost	153	132	110	89	67	45	24
Capital Expenditure	92	91	90	89	87	86	85

Table 14.101 North Block Complex: Twin Parameter NPV Sensitivity at the WACC (Revenue, Working Costs)

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Total Working Costs Sensitivity	-15%	1	52	103	153	204	255	306
	-10%	(21)	30	81	132	183	234	285
	-5%	(42)	8	59	110	161	212	263
	0%	(64)	(13)	38	89	139	190	241
	5%	(86)	(35)	16	67	118	169	220
	10%	(107)	(56)	(6)	45	96	147	198
	15%	(129)	(78)	(27)	24	75	126	176

Table 14.102 North Block Complex: Twin Parameter NPV Sensitivity at the WACC (Revenue, Capital Expenditure)

NPV (ZARm)		Revenue Sensitivity						
		-30%	-20%	-10%	0%	10%	20%	30%
Capital Expenditure	-15%	(60)	(9)	41	92	143	194	245
	-10%	(62)	(11)	40	91	142	193	244
	-5%	(63)	(12)	39	90	141	192	243
	0%	(64)	(13)	38	89	139	190	241
	5%	(65)	(14)	36	87	138	189	240
	10%	(67)	(16)	35	86	137	188	239
	15%	(68)	(17)	34	85	136	187	238

14.7.11 Coal – Sintel Char Project

Table 14.103 Sintel Char Project: NPV at Various Discount Factors

Discount Factor (%)	NPV (ZARm)
4.00%	633
8.00%	367
12.00%	213
16.20%	116
20.00%	61
24.00%	23
28.00%	(3)

Table 14.104 Sintel Char Project: NPV Sensitivity to WACC

Sensitivity (%)	Discount Factor (%)	NPV (ZARm)
-20%	12.96%	186
-15%	13.77%	166
-10%	14.58%	148
- 5%	15.39%	131
0%	16.20%	116
5%	17.01%	102
10%	17.82%	90
15%	18.63%	78
20%	19.44%	68

