

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES

This document indicates Exxaro's mineral resources and ore reserves remaining as at 31 December 2016. Mineral resource and ore reserve figures are not an inventory of all mineral occurrences drilled or sampled, but a realistic record of those which, under assumed and justifiable technical and economic conditions, may be economically extractable currently and in future.

Mineral resources and ore reserves are reported inclusive of mineral resources that have been converted to ore reserves. An exception is reporting for Gamsberg and Black Mountain Mining, because figures received from Vedanta plc (JORC Code) represent mineral resources excluding ore reserves.

Exxaro includes all estimates directly under its management control and estimates of entities in which Exxaro holds an equal or larger than 25% interest. Mineral resources and ore reserves are reported at 100%, irrespective of the percentage attributable to Exxaro.

The percentage attributable tonnage can be deduced from the attributable ownership stated in the mineral resources and ore reserves tables. The summarised tonnages are shown in table 2. Explanations for material changes are provided as footnotes in the mineral resources and ore reserves tables and detailed explanations for year-on-year movements are provided in chapter 8: Ancillary resource and reserve information by operation.

Table 2: Attributable resource and reserve tonnages

Commodity	Resource category	2016 MTIS (Mt)	2015 MTIS (Mt)	% change	Reserve category	2016 RoM (Mt)	2015 RoM (Mt)	% change
Coal	Measured	4 909	4 997		Proved	2 961	2 970	
	Indicated	2 283	2 519		Probable	596	797	
	Inferred	7 124	7 020					
	Total	14 316	14 536	(2)	Total	3 557	3 768	(8)
Mineral sands	Measured	728	705		Proved	371	351	
	Indicated	615	724		Probable	381	409	
	Inferred	665	528					
	Total	2 009	1 937	4	Total	752	760	(1)
Base metals	Measured	12,4	11,9		Proved	12,0	11,0	
	Indicated	22,7	27,5		Probable	4,0	4,8	
	Inferred	17,6	19,5					
	Total	52,7	59,0	(11)	Total	16,0	15,7	2

Footnotes for table 2

› MTIS refers to mineable tonnes in-situ and RoM to run-of-mine reserves

› Tonnages are quoted in metric tonnes on an air-dried basis, and million tonnes is abbreviated as Mt



6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 3: Coal resources and qualities for 2016

		2016 – tonnes and grade ³					2015 – tonnes and grade ³					Change in tonnes ⁴ %
Operation ¹	Category	Tonnes (Mt)	CV MJ/kg	% Ash	% IM	% S	Tonnes (Mt)	CV MJ/kg	% Ash	% IM	% S	
Arnot mine⁵ Mpumalanga (OC/UG) (in closure) 100% attributable to Exxaro ²	Measured	138,5	23,6	21,9	4,0	1,0	138,5	23,6	21,9	4,0	1,0	
	Indicated	64,3	23,7	21,6	4,2	0,9	64,3	23,7	21,6	4,2	0,9	
	Inferred	21,3	23,9	21,0	4,3	0,9	21,3	23,9	21,0	4,3	0,9	
	Total	224,1	23,7	21,7	4,1	1,0	224,1	23,1	21,7	4,1	1,0	
Resources inside LoMP							26,2	24,8	19,9	3,7	1,2	
Matla mine⁶ Mpumalanga (UG) (captive market) 100% attributable to Exxaro ²	Measured	752	20,1	30,8	4,4	1,0	516	20,1	30,4	4,4	1,0	
	Indicated	211	19,7	30,7	4,4	0,9	255	19,8	30,0	4,5	0,9	
	Inferred	88	21,1	27,0	4,7	1,0	241	20,0	29,3	4,7	1,1	
	Total	1 051	20,1	30,4	4,4	1,0	1 013	20,0	30,0	4,5	1,0	4
Resources inside LoMP		398	21,0	28,1	4,6	1,0	495	21,8	25,4	4,7	1,0	
Leeuwpaan mine⁷ Mpumalanga (OC) (commercial market) 100% attributable to Exxaro ²	Measured	128,0	20,3	31,0	3,5	0,9	146,7	18,5	28,2	3,5	0,9	
	Indicated											
	Inferred	3,7	21,0	31,6	2,3	1,1	3,7	21,0	31,7	2,3	1,1	
	Total	131,7	20,4	31,0	3,5	0,9	150,3	18,6	28,3	3,5	0,9	(12)
Resources inside LoMP		104,3	20,3	31,0	3,2	1,0	120,3	18,8	33,0	3,1	1,0	
Mafube mine⁸ Mpumalanga (OC) (commercial market) 50% attributable to Exxaro ²	Measured	133,6	21,6	26,7	3,8	1,0	163,7	22,2	24,8	3,8	1,0	
	Indicated	10,1	22,0	25,7	3,9	0,9	13,0	20,7	28,6	4,1	0,9	
	Inferred						2,1	20,0	30,7	3,8	0,7	
	Total	143,7	21,6	26,6	3,8	0,9	178,8	22,0	25,2	3,8	1,0	(20)
Resources inside LoMP		68,7	22,0	25,4	3,7	1,0	127,6	22,1	24,8	3,9	1,0	
NBC mine⁹ Mpumalanga (OC) (commercial market) 100% attributable to Exxaro ²	Measured	19,7	21,1	27,3	3,9	0,9	23,4	20,9	27,6	3,9	0,9	
	Indicated											
	Inferred											
	Total	19,7	21,1	27,3	3,9	0,9	23,4	20,9	27,6	3,9	0,9	(16)
Resources inside LoMP		4,1	19,7	29,1	3,8	1,2	9,8	20,3	29,0	3,8	0,8	
Glisa South project¹⁰ Mpumalanga (prospecting) 100% attributable to Exxaro ²	Measured	20,0	19,0	32,0	3,5	0,9	20,0	19,0	32,0	3,5	0,9	
	Indicated	47,1	19,0	31,8	3,6	1,0	47,1	19,0	31,8	3,6	1,0	
	Inferred	9,4	21,0	27,6	3,6	1,0	9,4	21,0	27,6	3,6	1,0	
	Total	76,5	19,3	32,0	3,5	0,9	76,5	19,3	32,0	3,5	0,9	
Belfast project¹¹ Mpumalanga (OC) (mining) 100% attributable to Exxaro ²	Measured	81,1	24,8	18,7	3,6	1,1	81,1	24,8	18,7	3,6	1,1	
	Indicated	22,4	21,6	26,9	3,7	1,1	22,4	21,6	26,9	3,7	1,1	
	Inferred	34,4	20,0	31,2	3,4	1,0	34,4	20,0	31,2	3,4	1,0	
	Total	137,8	23,1	23,2	3,6	1,1	137,8	23,1	23,2	3,6	1,1	
Resources inside LoMP		47,1	25,2	17,6	3,6	1,2	60,1	24,4	19,7	3,6	1,1	
Dorstfontein Complex¹² Mpumalanga (OC/UG) (commercial market) 74% attributable to Exxaro ²	Measured	85,7	20,7	31,2	3,0	1,2	93,9	20,8	31,2	3,0	1,2	
	Indicated	41,5	20,4	31,6	3,0	1,1	47,0	20,7	31,5	3,0	1,1	
	Inferred	171,2	19,6	33,7	2,9	1,1	192,0	20,3	33,3	2,9	1,1	
	Total	298,4	20,0	32,7	3,0	1,1	332,9	20,5	32,4	2,9	1,2	(10)
Resources inside LoMP		75,6	21,2	29,2	3,0	1,0						

See footnotes on page 15.

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 3: Coal resources and qualities for 2016 (continued)

Operation ¹	Category	2016 – tonnes and grade ³					2015 – tonnes and grade ³					Change in tonnes ⁴ %
		Tonnes (Mt)	CV MJ/kg	% Ash	% IM	% S	Tonnes (Mt)	CV MJ/kg	% Ash	% IM	% S	
Rietkuil Vhakoni project ¹³ Mpumalanga (prospecting) 74% attributable to Exxaro ²	Measured	28,3	19,3	35,6	2,5	1,2	36,0	19,6	34,9	2,4	1,2	
	Indicated	20,6	19,4	35,7	2,4	1,2	24,4	19,4	35,9	2,4	1,2	
	Inferred	52,6	18,1	38,9	2,6	1,1	61,0	18,2	38,4	2,6	1,1	
	Total	101,5	18,7	37,3	2,5	1,1	121,3	18,9	36,9	2,5	1,2	(16)
Forzando mines ¹⁴ Mpumalanga (UG) (commercial market) 74% attributable to Exxaro ²	Measured	75,7	22,2	27,2	2,9	1,2	57,4	22,6	25,8	3,0	1,2	
	Indicated	53,4	21,9	28,3	2,9	1,2	38,0	22,1	27,7	3,0	1,3	
	Inferred	31,7	21,2	30,4	2,8	1,2	25,5	21,1	30,6	2,8	1,2	
	Total	160,8	21,9	28,2	2,9	1,2	120,9	22,2	27,4	3,0	1,2	33
	Resources inside LoMP	73,6	21,5	29,2	2,8	1,1						
Forzando projects ¹⁵ Mpumalanga (prospecting) 74% attributable to Exxaro ²	Measured	0,3	21,7	29,4	2,6	0,6	21,5	21,5	29,7	2,6	1,1	
	Indicated	15,8	20,9	30,9	3,2	1,5	32,3	21,2	30,1	2,9	1,2	
	Inferred	6,8	20,7	32,7	2,5	1,2	15,4	21,3	30,6	2,6	1,1	
	Total	22,9	20,8	31,4	3,0	1,4	69,3	21,3	30,1	2,7	1,1	(67)
Schurvekop 1063 ¹⁶ Mpumalanga (prospecting) 49% attributable to Exxaro ²	Measured	31,2	20,0	32,0	3,4	1,2	31,2	20,0	32,0	3,4	1,2	
	Indicated	8,7	20,4	30,8	3,4	1,4	8,7	20,4	30,8	3,4	1,4	
	Inferred	0,5	19,0	34,5	3,6	0,8	0,5	19,0	34,5	3,6	0,8	
	Total	40,4	20,1	31,8	3,4	1,2	40,4	20,1	31,8	3,4	1,2	
Tumelo mine Mpumalanga (UG) (care and maintenance) 49% attributable to Exxaro ²	Measured	6,0	23,4	24,9	2,6	1,3	6,0	23,4	24,9	2,6	1,3	
	Indicated											
	Inferred											
	Total	6,0	23,4	24,9	2,6	1,3	6,0	23,4	24,9	2,6	1,3	
Eloff project ¹⁷ Mpumalanga (prospecting) 51% attributable to Exxaro ²	Measured	9,4	19,6	31,3	3,7	1,2	9,7	19,6	31,2	3,7	1,2	
	Indicated	213,5	19,3	30,5	3,9	0,9	239,3	19,3	30,5	3,9	0,9	
	Inferred	201,1	19,1	31,2	3,9	0,9	226,5	19,1	31,2	3,9	0,9	
	Total	424,0	19,2	30,9	3,9	0,9	475,5	19,2	30,9	3,9	0,9	(11)
Grootegeeluk mine ¹⁸ Limpopo (OC) (commercial market) 100% attributable to Exxaro ²	Measured	3 025	16,7	47,7	1,8	1,4	3 298	15,5	47,2	1,7	1,2	
	Indicated	837	17,0	47,2	1,6	1,5	983	15,6	48,1	1,8	1,3	
	Inferred	673	16,4	48,4	1,9	1,4	247	16,8	45,3	1,9	1,3	
	Total	4 535	16,7	47,7	1,8	1,4	4 528	15,6	47,3	1,7	1,2	
	Resources inside LoMP	3 420	16,3	48,8	1,8	1,5	3 367	15,1	48,5	1,7	1,3	

See footnotes on page 15.

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 3: Coal resources and qualities for 2016 (continued)

Operation ¹	Category	2016 – tonnes and grade ³					2015 – tonnes and grade ³					Change in tonnes ⁴ %
		Tonnes (Mt)	CV MJ/kg	% Ash	% IM	% S	Tonnes (Mt)	CV MJ/kg	% Ash	% IM	% S	
Thabametsi project¹⁹ Limpopo (OC/UG) (mining) 100% attributable to Exxaro ²	Measured	270	13,0	52,3	1,9	1,2	270	13,0	52,3	1,9	1,2	
	Indicated	749	12,6	53,1	1,8	1,1	749	12,6	53,1	1,8	1,1	
	Inferred	2 916	12,7	52,7	1,9	1,3	2 916	12,7	52,7	1,9	1,3	
	Total	3 935	12,7	52,7	1,9	1,3	3 935	12,7	52,7	1,9	1,3	
Resources inside LoMP		133	12,0	54,7	1,9	1,0	133	12,0	54,7	1,9	1,0	
Tshikondeni mine²⁰ Limpopo (OC/UG) 100% attributable to Exxaro ²	Measured	3,7	30,8	24,0	0,7	0,7	3,7	30,8	24,0	0,7	0,7	
	Indicated	25,1	30,8	24,0	0,7	0,7	25,1	30,8	24,0	0,7	0,7	
	Inferred											
	Total	28,8	30,8	24,0	0,7	0,7	28,8	30,8	24,0	0,7	0,7	
Waterberg North project Limpopo (prospecting) 100% attributable to Exxaro ²	Measured											
	Indicated											
	Inferred	2 147	13,3	49,7	2,5	1,2	2 253	13,3	49,7	2,5	1,2	
	Total	2 147	13,3	49,7	2,5	1,2	2 253	13,3	49,7	2,5	1,2	(5)
Waterberg South project Limpopo (prospecting) 100% attributable to Exxaro ²	Measured											
	Indicated											
	Inferred	869	15,9	39,6	2,9	1,7	895	15,9	39,6	2,9	1,7	
	Total	869	15,9	39,6	2,9	1,7	895	15,9	39,6	2,9	1,7	(3)
Zonderwater project Limpopo (prospecting) 100% attributable to Exxaro ²	Measured	23	24,3	20,8	2,3	2,2	23	24,3	20,8	2,3	2,2	
	Indicated	51	24,0	21,6	2,2	2,3	51	24,0	21,6	2,2	2,3	
	Inferred											
	Total	74	24,0	21,4	2,3	2,3	74	24,0	21,4	2,3	2,3	
Moranbah South project²¹ Australia (UG) 50% attributable to Exxaro ²	Measured	481,9	26,7	23,7	2,6	0,6	481,9	26,7	23,7	2,6	0,6	
	Indicated	222,5	27,3	21,7	2,6	0,6	222,5	27,3	21,7	2,6	0,6	
	Inferred	28,0	28,5	18,9	2,7	0,5	28,0	28,5	18,9	2,7	0,5	
	Total	732,4	27,0	22,9	2,6	0,6	732,4	27,0	22,9	2,6	0,6	

See footnotes on page 15.

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 3: Coal resources and qualities for 2016 (continued)

Footnotes for table 3

- › Rounding may cause computational discrepancies
- › All changes over 10% are explained
- › Tonnages are quoted in metric tonnes and million tonnes abbreviated as Mt
- › Coal resources and qualities (raw coal) are quoted on a mineable tonnage in-situ (MTIS) and air-dried basis
- › Coal resources are quoted inclusive of coal resources that have been modified to coal reserves unless otherwise stated
- › Resources inside life-of-mine plan (LoMP) refer to total mineable tonnes in-situ (MTIS) resources in LoMP layout
- ¹ Operation refers to operating mine or significant project. Mining method: OC - open-cut, UG - underground
- ² Figures are reported at 100% irrespective of percentage attributable to Exxaro and refer to 2016 only
- ³ Raw coal qualities. CV - gross calorific value, IM - inherent moisture, S - total sulphur
- ⁴ The percentage difference between 2016 reported MTIS and 2015 reported MTIS. Brackets signify a negative
- ⁵ The mine is in closure. The remaining resources have reasonable prospects for eventual economic extraction
- ⁶ Changes within resource categories are due to new drillhole information (192Mt) and subsequent update of the geological model
- ⁷ The decrease is due to mining depletion (-8,2Mt), model refinement (-2Mt) and disposal of resources (-8,5Mt) as a result of geotechnical considerations
- ⁸ The decrease is primarily due to limitations of the approved water use licence (-38Mt), offset by the addition of new drillhole information and subsequent update of the geological model (~3Mt). Estimates are received from Anglo American Thermal Coal and not audited by Exxaro
- ⁹ The decrease in resources is primarily the result of mining depletion (-4,3Mt)
- ¹⁰ The project is adjacent to the current Glisa (NBC) resource area and is considered an extension of the current operation, pending feasibility studies. A new mining right was timeously submitted in November 2013
- ¹¹ The change in resources inside LoMP reflects limitations of the approved water use licence and the economic viability related to acquisition of surface rights
- ¹² The Dorstfontein Complex consists of East (open-cut/underground) and West (underground) operations. The change in resources is the result of depletion (-3,7Mt) and a change in economic assumptions, differentiating between OC and UG resources (-31Mt)
- ¹³ The approval of a section 102 (ministerial consent) application to include this right into Dorstfontein 119MR is pending. The change is the result of revised application of geological losses (domain approach)
- ¹⁴ Includes the mining operations of Forzando South and Forzando North (care and maintenance). The change reflects depletion (-2,4Mt), inclusion of Forzando West 1066PR into Forzando South 380MR after approval of a section 102 (+45Mt) and change in economic assumptions (-2,6Mt)
- ¹⁵ Consists of a number of prospecting rights (1916PR, 1846PR, 1035PR, 1170PR and 1063PR) adjacent to the two Forzando operations. The change is primarily the result of the transfer (-45Mt) of Forzando West 1066PR into the Forzando South 380MR following the approval of a section 102 application
- ¹⁶ Estimates are received from Mmakau Mining, the majority (51%) owner of the project
- ¹⁷ The change reflects the revised application of geological losses (domain approach)
- ¹⁸ Changes within resource categories are the result of new information and update of the geological model and resource classification
- ¹⁹ The Thabametsi project is adjacent to the operating Grootegeluk mine. The eventual economic viability of the resources is inferred from independent power producer (IPP) technical studies conducted on phase 1 of the resource
- ²⁰ Tshikondeni is in the process of mine closure and was a dedicated metallurgical coal supplier for ArcelorMittal. The remaining coal resource reported is located within Mankanja (~25Mt) as well as the Mutale West and Perdeskoen areas (3,7Mt). These resources have reasonable prospects for eventual economic extraction
- ²¹ Estimates are received from Anglo American Metallurgical Coal Proprietary Limited and not audited by Exxaro



6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 4: Coal reserves reported for 2016

Operation ¹	LoM (years) ³	Category	2016 – RoM and saleable tonnes ⁴				2015 – RoM and saleable tonnes ⁴				Change in RoM ⁵ %
			RoM (Mt)	Export (Mt)	Thermal (Mt)	Metallurgical (Mt)	RoM (Mt)	Export (Mt)	Thermal (Mt)	Metallurgical (Mt)	
Arnot mine⁶ Mpumalanga (OC/UG) (in closure) 100% attributable to Exxaro ²	8+	Proved									
		Probable					17,9		17,0		
		Total	0,0				17,9		17,0	(100)	
Matla mine⁷ Mpumalanga (UG) (captive market) 100% attributable to Exxaro ²	8+	Proved	220,5		219,4		188,3		187,4		
		Probable	33,6		33,4		68,1		68,3		
		Total	254,1		252,8		257,0		255,7	(1)	
		Inferred resources inside LoMP	5,3				46,9				
Leeuwpan⁸ Mpumalanga (OC) (commercial market) 100% attributable to Exxaro ²	13	Proved	13,7		6,3	2,4	18,7	0,6	7,2	4,1	
		Probable	52,9		10,1	16,5	80,5	1,6	10,1	27,8	
		Total	66,6		16,4	18,9	99,2	2,2	17,3	31,9	(33)
		Inferred resources inside LoMP	0,0				0,0				
Mafube⁹ Mpumalanga (OC) (commercial market) 50% attributable to Exxaro ²	12	Proved	4,8	2,3	1,1		2,5	1,4	0,4		
		Probable	64,0	27,4	14,3		119,4	51,7	22,4		
		Total	68,8	29,7	15,4		121,9	53,1	22,8	(44)	
		Inferred resources inside LoMP	0,0				0,0				
NBC mine¹⁰ Mpumalanga (OC) (commercial market) 100% attributable to Exxaro ²	0,5	Proved	1,9		1,6		9,2		7,3		
		Probable	1,9		1,5						
		Total	3,8		3,1		9,2		7,3	(59)	
		Inferred resources inside LoMP	0,0				0,0				
Belfast project (OC) (commercial market) 100% attributable to Exxaro ²	17	Proved	45,7	32,6	8,1		45,7	35,3	8,1		
		Probable									
		Total	45,7	32,6	8,1		45,7	35,3	8,1		
		Inferred resources inside LoMP	0,5				0,5				
Dorfontein Complex¹¹ Mpumalanga (OC UG) (commercial market) 74% attributable to Exxaro ²	15	Proved	34,5	20,8			12,2	7,2			
		Probable	9,0	5,7			8,1	4,3			
		Total	43,5	26,5			20,3	11,5		114	
		Inferred resources inside LoMP	5,0				3,6				
Forzando mines¹² Mpumalanga (UG) (commercial market) 74% attributable to Exxaro ²	12+	Proved	11,4	7,6			7,0	5,8			
		Probable	37,1	26,1			4,5	3,7			
		Total	48,5	33,7			11,5	9,5		321	
		Inferred resources inside LoMP	7,2				0,3				

Operation ¹	LoM (years) ³	Category	2016 – RoM and saleable tonnes ⁴				2015 – RoM and saleable tonnes ⁴				Change in RoM ⁴ %
			RoM (Mt)	Coking (Mt)	Thermal (Mt)	Metallurgical (Mt)	RoM (Mt)	Coking (Mt)	Thermal (Mt)	Metallurgical (Mt)	
Grootegeluk mine¹³ Limpopo (OC) (commercial market) 100% attributable to Exxaro ²	24+	Proved	2 534	96	1 187	77	2 679	120	1 138	78	
		Probable	421	15	195	10	537	33	218	11	
		Total	2 954	111	1 382	88	3 216	153	1 356	89	(8)
		Inferred resources inside LoMP	324				67				
Thabametsi project¹⁴ Limpopo (OC) (IPP market) 100% attributable to Exxaro ²	29+	Proved	109,0		107,0		109,0		107,0		
		Probable	21,0		20,0		21,0		20,0		
		Total	130,0		127,0		130,0		127,0		
		Inferred resources inside LoMP	0,0				0,0				

See footnotes on page 17.

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 4: Coal reserves reported for 2016 (continued)

Footnotes for table 4

- › Rounding may cause computational discrepancies
- › Tonnages are quoted in metric tonnes and million tonnes abbreviated as Mt
- › Inferred resources inside life-of-mine plan (LoMP) refer to inferred resources considered for the LoMP. These resources have not been converted to reserves
- › Coal reserves are quoted on a run-of-mine (RoM) reserve tonnage basis which represents tonnages delivered to the plant at applicable moisture and quality
- › Saleable reserve tonnage represents the product tonnes of coal available for sale on an applicable moisture basis
- › All changes over 10% (significant) are explained
- ¹ Operation refers to operating mine or significant project. Mining method: OC - open-cut, UG - underground
- ² Figures are reported at 100% irrespective of percentage attributable to Exxaro and refer to 2016 only
- ³ The + symbol is used where the scheduled LoMP extends beyond the expiry of the mining rights. In each instance, Exxaro has a reasonable expectation that the mining right will be renewed
- ⁴ Export refers to export thermal coal except in the case of Grootegeluk mine where export refers to semi-soft coking coal, suitable for both export and inland markets
- ⁵ The percentage difference between 2016 reported RoM and 2015 reported RoM
- ⁶ In 2016, a study was conducted into the commercial viability of Arnot, indicating several areas that can be profitably mined for the thermal coal market. However, due to the absence of an official coal supply agreement (CSA), no reserves have been declared
- ⁷ Ore reserves exist for LoMP extending well beyond the period for which the mining right was granted. The operation currently plans to be in production until at least 2037, although the mining right lapses in 2025. Exxaro has a reasonable expectation that the mining right renewal, once submitted, will be granted
- ⁸ The change in reserves is the result of depletion (5,83Mt), economic assumptions (14,27Mt), model refinement (9,65Mt) and 2,79Mt of disposals. The mine's market strategy changed and it has exited the lean coal export market, resulting in no further export saleable product reported
- ⁹ The LoMP has been revised based on the latest macro-economic assumptions, resulting in a greatly reduced footprint. Estimates are received from Anglo American Thermal Coal and not audited by Exxaro
- ¹⁰ The NBC CSA with Eskom expires on 30 June 2017. Exxaro has a reasonable expectation that Eskom will continue offtake until 31 December 2017. Scheduled reserves beyond the CSA are classified in the probable category due to uncertainty on the CSA extension
- ¹¹ The market strategy and LoMP were thoroughly revised, extending the number of years in the LoMP well beyond the conservative five years as reported last year
- ¹² The market strategy and LoMP were thoroughly revised, extending the LoMP to 2036 well beyond the conservative five years as reported last year as well as the expiry of both the Forzando North (FZON) and Forzando South (FZOS) mining rights (June 2029)
- ¹³ The decrease reflects the updated resource classification
- ¹⁴ Thabametsi power project, for which Thabametsi project has a 30-year CSA, has been selected as a preferred bidder in the first bid window of South Africa's coal-baseload independent power producer procurement programme (CBIPPPP)

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 5: Coal reserve qualities 2016

		Thermal saleable (proved + probable)					Metallurgical saleable (proved + probable)					Coking saleable (proved + probable)				
Operation	Seam/layer	Tonnes (Mt) ¹	CV MJ/ kg	% VM	% Ash	% S	Tonnes (Mt) ¹	CV MJ/ kg	% VM	% Ash	% S	Tonnes (Mt) ¹	CV MJ/ kg	% VM	% Ash	% S
Matla mine	Seam 2	89,1	22,5	22,6	20,4	1,0										
	Seam 4	165,0	18,5	20,9	31,4	0,9										
Leeuwpan	TC ²	13,5	22,5	20,6	25,3	0,7	2,4	26,5	19,3	17,8	1,0					
	BC ²	2,9	23,2	23,8	23,3	0,8	16,5	26,3	23,0	16,4	0,9					
Mafube	Middlings	15,3	22,0	21,7	24,9	0,6										
	Export	29,8	26,6	26,2	13,5	0,4										
NBC mine	Glisa: total seams	2,4	21,0	22,4	26,1	1,0										
	Eerstelingsfontein: seam 2	0,7	25,6	22,6	17,3	0,9										
Belfast project	Thermal	8,1	21,9	22,4	26,6	1,8										
	Export	32,6	26,9	26,9	13,7	0,5										
Dorstfontein Complex	All seams	26,4	24,6	22,2	20,5	0,6										
Forzando mines	All seams	33,7	24,7	26,7	17,8	1,0										
Grootegeluk mine	All seams	1 381,7	22,3	26,1	30,8	1,4	87,6	28,7	23,7	14,3	0,6	111,3	29,6	35,5	10,3	1,2
Thabametsi project ³	T1	64,0	12,7	20,0	53,9	1,1										
	T2	63,0	11,3	19,0	55,7	1,0										

Footnotes for table 5

- > VM - volatile matter, S - sulphur, CV - gross calorific value
- > Rounding may cause computational discrepancies
- > Saleable reserve tonnage represents the product tonnes of coal available for sale on an applicable moisture and air-dried quality basis
- ¹ Saleable product tonnages are quoted in metric tonnes and million tonnes abbreviated as Mt
- ² TC - top coal, BC - bottom coal
- ³ Based on Thabametsi bench configuration as defined in phase 1 feasibility study



6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 6: Mineral sands resources reported for 2016

		2016 – tonnes and grade		2015 – tonnes and grade		Change in tonnes %
Operation ¹	Category	Tonnes (Mt)	% Ilmenite	Tonnes (Mt)	% Ilmenite	
Hillendale mine KwaZulu-Natal (OC) (in closure) 58,55% attributable to Exxaro ²	Measured	12,2	2,9	12,2	2,9	
	Indicated					
	Inferred					
	Total					
Fairbreeze mine KwaZulu-Natal (OC) (mining right) 58,55% attributable to Exxaro ²	Measured	154,6	4,23	156,1	4,29	
	Indicated					
	Inferred					
	Total					
Block P KwaZulu-Natal (OC) (mining right) 58,55% attributable to Exxaro ²	Measured	40,6	3,1	40,6	3,1	
	Indicated					
	Inferred					
	Total					
Port Durnford project KwaZulu-Natal (OC) (prospecting) 58,55% attributable to Exxaro ²	Measured	143	3,0	143	3,0	
	Indicated					
	Inferred					
	Total					
		949	2,7	949	2,7	(1)

		2016 – tonnes and grade			2015 – tonnes and grade			Change in tonnes %
Operation ¹	Category	Tonnes (Mt)	% Ilmenite	% Zircon	Tonnes (Mt)	% Ilmenite	% Zircon	
Namakwa Sands mine³ Western Cape (OC) (mining right) 58,55% attributable to Exxaro ²	Measured	592	2,88	0,64	625	2,88	0,65	
	Indicated							
	Inferred							
	Total							
		1 424	2,24	0,49	1 007	2,66	0,63	42

See footnotes on page 19.

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 6: Mineral sands resources reported for 2016 (continued)

		2016		2015		Change in tonnes %
		Tonnes (Mt)	% total heavy minerals (THM)	Tonnes (Mt)	% THM	
Cooljarloo mine	Measured	313	1,8	252	1,8	
Western Australia	Indicated	210	1,7	233	1,7	
(OC)	Inferred					
43,98% attributable to Exxaro ²						
Total		523	1,8	485	1,8	8
Cooljarloo West project	Measured					
Western Australia	Indicated	177	1,8	177	1,8	
(OC) (mining right)	Inferred					
43,98% attributable to Exxaro ²						
Total		177	1,8	177	1,8	
Cooljarloo North West project	Measured					
Western Australia	Indicated					
(OC) (prospecting)	Inferred	141,6	2,1	141,6	2,1	
43,98% attributable to Exxaro ²						
Total		141,6	2,1	141,6	2,1	
Jurien project⁴	Measured	36,2	5,8			
Western Australia	Indicated	5,9	3,3	25,6	6,0	
(OC) (mining right)	Inferred					
43,98% attributable to Exxaro ²						
Total		42,1	5,4	25,6	6,0	65
Dongara project	Measured	106,5	3,9	105,9	4,0	
Western Australia	Indicated	17,9	4,5	12,8	4,5	
(OC) (mining right)	Inferred	39,4	2,7	37,8	2,7	
43,98% attributable to Exxaro ²						
Total		163,9	3,7	156,4	3,7	5

Footnotes for table 6

- > Mineral resources are quoted inclusive of mineral resources that have been modified to mineral reserves unless otherwise stated
 - > Estimates as received from Tronox at 31 December 2016 and not audited by Exxaro
 - > Rounding may cause computational discrepancies
 - > Tonnages are quoted in metric tonnes and million tonnes abbreviated as Mt
 - > All changes over 10% (significant) are explained
- ¹ Operation refers to operating mine or significant project. Mining method: OC - open-cut, UG - underground
- ² Figures are reported at 100% irrespective of percentage attributable to Exxaro and refer to 2016 only
- ³ The increase is due to the addition of environmentally sensitive zones, collectively called the Protectorate
- ⁴ The resource increase was due to optimisation of the known resources, new drilling data and inclusion of a new deposit (Jurien East)

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 7: Mineral sands reserves reported for 2016

Operation ¹	LoM (years) ³	Category	2016 – RoM and grade						2015 – RoM and grade		Change in RoM %
			RoM (Mt)	% THM	Total heavy mineral (THM) composition				RoM (Mt)	% THM	
					% Ilmenite	% Rutile	% Zircon	% Leucoxene			
Fairbreeze mine	12	Proved	137,4	7,0	61,9	3,6	8,4	1,6	139,0	7,1	
KwaZulu-Natal (OC) (mining right)		Probable	45,3	4,6	53,2	3,2	7,3	1,8	45,3	4,6	
58,55% attributable to Exxaro ²		Total	182,7	6,4	60,4	3,5	8,2	1,6	184,3	6,5	(1)
Inferred resources inside LoMP							6,8				
Namakwa Sands mine	21+	Proved	214,0	8,6	35,8	2,5	9,2	5,4	222,0	8,9	
Western Cape (OC) (mining right)		Probable	500,6	5,6	50,0	2,9	10,8	6,8	503,0	5,6	
58,55% attributable to Exxaro ²		Total	714,7	6,5	44,4	2,8	10,2	6,2	725,0	6,6	(1)
Inferred resources inside LoMP											
Cooljarloo mine	13+	Proved	312,9	1,8	59,9	5,0	10,0	2,5	252,0	1,8	
Western Australia (OC)		Probable	33,9	2,0	61,1	4,8	9,2	2,9	95,0	1,6	
43,98% attributable to Exxaro ²		Total	346,8	1,8	60,0	5,0	9,9	2,5	347,0	1,8	
Inferred resources inside LoMP											
Cooljarloo West project	9	Proved	104,5	2,0	60,5	5,0	12,2	2,9	104,5	2,0	
Western Australia (OC) (mining right)		Probable	104,5	2,0	60,5	5,0	12,2	2,9	104,5	2,0	
43,98% attributable to Exxaro ²		Total	104,5	2,0	60,5	5,0	12,2	2,9	104,5	2,0	
Inferred resources inside LoMP											
Dongara project	12+	Proved	61,9	5,2	48,7	6,1	10,9	2,8	64,6	5,1	
Western Australia (OC) (mining right)		Probable	61,9	5,2	48,7	6,1	10,9	2,8	64,6	5,1	
43,98% attributable to Exxaro ²		Total	61,9	5,2	48,7	6,1	10,9	2,8	64,6	5,1	(4)
Inferred resources inside LoMP											

Footnotes for table 7

- > % THM - percent total heavy minerals
 - > Rounding figures may cause computational discrepancies
 - > Figures are reported at 100% irrespective of percentage attributable to other shareholders
 - > Tonnages are quoted in metric tonnes and million tonnes abbreviated as Mt
 - > Reserves are quoted on a run-of-mine (RoM) reserve tonnage basis which represents tonnages delivered to the plant at an applicable moisture and quality
 - > Inferred resources in life-of-mine plan (LoMP) refer to inferred resources considered for the LoMP
 - > Estimates as received from Tronox at 31 December 2016 and not audited by Exxaro
 - > All changes more than 10% (significant) are explained
- ¹ Operation refers to operating mine or significant project. Mining method: OC - open-cut, UG - underground
- ² Figures are reported at 100% irrespective of percentage attributable to Exxaro and refer to 2016 only
- ³ The + symbol is used where the scheduled LoMP extends beyond the expiry of the mining rights

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 8: Base metals resources (exclusive) reported for 2016

		2016 – tonnes and grade					2015 – tonnes and grade					Change in tonnes %
Operation ¹	Category	Tonnes (Mt)	% Zn	% Pb	% Cu	Ag g/t	Tonnes (Mt)	% Zn	% Pb	% Cu	Ag g/t	
Black Mountain Mining-Deeps mine³	Measured	4,3	3,1	3,4	0,3	34,8	3,6	3,0	3,0	0,4	34,3	
Northern Cape	Indicated	6,9	2,5	2,8	0,5	34,9	9,3	2,4	2,3	0,5	29,8	
(UG) (zinc, lead, copper and silver)	Inferred											
26% attributable to Exxaro ²												
Total		11,2	2,7	3,0	0,4	34,9	12,9	2,7	2,6	0,5	31,5	(13)
Black Mountain Mining-Swartberg mine³	Measured	25,9	0,5	2,2	0,5	24,8	31,5	0,5	2,4	0,5	25,1	
Northern Cape	Indicated	3,3	0,4	2,3	0,6	52,2	15,5	0,6	3,1	0,5	32,6	
(UG) (zinc, lead, copper and silver)	Inferred											
26% attributable to Exxaro ²												
Total		29,2	0,5	2,3	0,5	27,9	47,0	0,5	2,5	0,5	25,9	(38)
		Tonnes (Mt)	% Zn	% Pb	% Mn	% S	Tonnes (Mt)	% Zn	% Pb	% Mn	% S	
Gamsberg North mine³	Measured	43,3	6,6	0,6	0,8	20,2	42,3	6,5	0,6	0,7	20,2	
Northern Cape	Indicated	54,6	5,9	0,5	0,7	19,8	65,0	5,6	0,5	0,6	18,8	
(OC) (zinc)	Inferred	32,1	5,8	0,5	0,9	17,7	27,4	5,4	0,5	0,6	18,1	
26% attributable to Exxaro ²												
Total		130,0	5,8	0,5	0,6	19,1	134,7	5,8	0,5	0,6	19,1	(3)
Gamsberg East project	Measured											
Northern Cape	Indicated											
(prospecting) (zinc)	Inferred	32,3	9,8	-	-	-	32,3	9,8	-	-	-	
26% attributable to Exxaro ²												
Total		32,3	9,8	-	-	-	32,3	9,8	-	-	-	

Footnotes for table 8

- > % Zn - percent zinc, % Cu - percent copper, % Pb - percent lead, Ag g/t - grams per tonne silver, % Mn - percent manganese, % S - percent sulphur
 - > Rounding may cause computational discrepancies
 - > Tonnages are quoted in metric tonnes and million tonnes abbreviated as Mt
 - > Estimates as received from Vedanta Resources plc at 31 December 2016 and not audited by Exxaro
 - > Resources quoted on a mineable tonnes in-situ (MTIS) basis and in addition to those converted to ore reserves
 - > All changes over 10% (significant) are explained
- ¹ Operation refers to operating mine or significant project. Mining method: OC - open-cut, UG - underground
- ² Figures are reported at 100% irrespective of percentage attributable to Exxaro
- ³ The change in resources is due to additional drilling and revised pit designs

6 GROUP SUMMARY OF RESOURCE AND RESERVE ESTIMATES (CONTINUED)

Table 9: Base metals reserves (exclusive) reported for 2016

			2016 – RoM and grade					2015 – RoM	Change in RoM %
Operation ¹	LoM (years)	Category	RoM (Mt)	% Zn	% Pb	% Cu	Ag g/t	RoM (Mt)	
Deeps mine³ Northern Cape (UG) (zinc, lead, copper and silver) 26% attributable to Exxaro ²	6	Proved	1,8	3,4	4	0,4	42,2	3,0	
		Probable	4,3	2,6	2,6	0,7	32,8	6,9	
		Total	6,1	2,8	3,0	0,6	35,5	9,9	(39)
Inferred resources inside LoMP									
Swartberg mine³ Northern Cape (UG) (zinc, lead, copper and silver) 26% attributable to Exxaro ²	6	Proved							
		Probable	2,3	0,6	3,2	0,6	24,2	2,0	
		Total	2,3	0,6	3,2	0,6	24,2	2,0	12
Inferred resources inside LoMP									
				% Zn	% Pb	% Mn	% S		
Gamsberg North mine³ Northern Cape (OC) (zinc) 26% attributable to Exxaro ²	13	Proved	44,5	6,8	0,5	0,9	20,6	39,1	
		Probable	8,7	6,0	0,5	1,1	17,3	9,5	
		Total	53,2	6,6	0,5	1,0	20,0	48,6	9
Inferred resources inside LoMP			0,4				1,8		

Footnotes for table 9

- > % Zn - percent zinc, % Cu - percent copper, % Pb - percent lead, Ag g/t - grams per tonne silver, % Mn - percent manganese, % S - percent sulphur
 - > Rounding may cause computational discrepancies
 - > Figures are reported at 100% irrespective of percentage attributable to Exxaro
 - > Tonnages are quoted in metric tonnes and million tonnes abbreviated as Mt
 - > Reserves are quoted on a run-of-mine (RoM) reserve tonnage basis which represents tonnages delivered to the plant at an applicable moisture and quality
 - > Inferred resources inside life-of-mine plan (LoMP) refer to inferred resources considered for the LoMP
 - > Estimates as received from Vedanta Resources plc at 31 December 2016 and not audited by Exxaro
 - > All changes over 10% (significant) are explained
- ¹ Operation refers to operating mine or significant project. Mining method: OC - open-cut, UG - underground
- ² Figures are reported at 100% irrespective of percentage attributable to Exxaro
- ³ The change in reserves is due to additional drilling and revised pit designs