

**SUSTAINABILITY DATA TABLES**

**2017**



**We do it better**

# SAFETY

Operation	SHEQ certification	LTIFR					Awards/Achievements in F2017
		F2017	F2016	F2015	F2014	F2013	
<b>Ferrous division</b>							
Beeshoek Mine	ISO 9001, ISO 14001, OHSAS 18001, SANS 16001	<b>0.15</b>	0.07	0.07	–	0.07	Completed 3.5 million fatality-free shifts. Also completed 15 000 fatality-free production shifts over 14 years. Won the prize for best in class safety performance at a base metal mine and second place for year-on-year safety improvement at the 2017 Mine Safe Conference.
Black Rock Mine	ISO 9001, ISO 14001, SANS 16001	<b>0.24</b>	0.35	0.35	0.44	0.33	Completed 5.5 million fatality-free shifts. Recognised by the DMR as the safest underground mine in the Northern Cape. Awarded the JT Ryan Trophy at the 2017 Mine Safe Conference for the best safety performance at an underground mine and won second place for environmental performance.
Cato Ridge Works	ISO 9001, ISO 14001, OHSAS 18001	<b>0.19</b>	0.17	0.38	0.12	0.10	Completed 2.1 million fatality-free shifts.
Khumani Mine	Integrated certification of ISO 9001, ISO 14001 and OHSAS 18001. Also SANS 16001 certified	<b>0.10</b>	0.17	0.29	0.10	0.22	Completed 1.4 million fatality-free shifts. Won the 2017 Mine Safe award in the health and wellness category for the paper it produced: "Wellness Peer Educators Create Positive Health Behaviour Impact in the Workplace".
Machadodorp Works	ISO 9001, ISO 14001, OHSAS 18001	–	0.55	–	0.32	–	Completed 1 million fatality-free shifts.
<b>Platinum division</b>							
Modikwa Mine	ISO 14001	<b>0.58</b>	0.64	0.73	0.87	1.16	Achieved 3.9 million fatality-free shifts.
Nkomati Mine	ISO 9001, ISO 14001, OHSAS 18001	–	0.09	0.23	0.03	0.11	Completed 5.7 million fatality-free shifts.
Two Rivers Mine	OHSAS 18001. Aligning SHEQ systems with ISO 14001. Training Centre is ISO 9001 certified	<b>0.31</b>	0.41	0.24	0.28	0.33	Completed 3.9 million fatality-free shifts. Won third place at the 2017 Mine Safe Conference for best in class safety performance at a platinum mine.
<b>Copper Division</b>							
Lubambe Mine	Aligning SHEQ systems with ISO 14001 and OHSAS 18001. Training Centre is ISO 9001 certified	<b>0.14</b>	0.21	0.21	0.19	0.16	Completed 3.7 million fatality-free shifts. Remains fatality-free since the start of the project in October 2010.

## SAFETY continued

## SAFETY PERFORMANCE BY REGION

		F2017						
		Fatalities	Reportable Injuries	Lost Time Injuries	Average total hours worked	Fatality Frequency Rate	Reportable Injury Frequency Rate	Lost Time Injury Frequency Rate
Beeshoek Mine	Northern Cape	–	2	2	2 619 605	–	0.15	0.15
Khumani Mine	Northern Cape	–	4	3	5 777 453	–	0.14	0.10
Black Rock Mine	Northern Cape	–	4	9	7 469 379	–	0.11	0.24
Cato Ridge Works	KZN	–	1	1	1 073 627	–	0.19	0.19
Machadodorp Works	Mpumalanga	–	–	–	350 517	–	–	–
Nkomati Mine	Mpumalanga	–	–	–	5 581 640	–	–	–
Two Rivers Mine	Mpumalanga	–	7	10	6 377 506	–	0.22	0.31
Modikwa Mine	Mpumalanga	–	29	37	12 769 624	–	0.45	0.58
Lubambe Mine	Zambia	–	–	3	4 349 625	–	–	0.14
<b>ARM total</b>		–	47	65	46 368 976	–	0.20	0.28
Ferrous division		–	11	15	17 290 581	–	0.13	0.17
Platinum division		–	36	47	24 728 770	–	0.29	0.38
Copper division		–	–	3	4 349 625	–	–	0.14
<b>ARM total</b>		–	47	65	46 368 976	–	0.20	0.28
<b>By Region</b>								
KwaZulu Natal (Cato Ridge Works)		–	1	1	1 073 627	–	0.19	0.19
Mpumalanga (Dwarsrivier, Modikwa, Two Rivers and Nkomati Mines, and Machadodorp Works)		–	36	47	25 079 787	–	0.29	0.37
Northern Cape (Beeshoek, Black Rock and Khumani mines)		–	10	14	15 866 437	–	0.13	0.18
Zambia (Lubambe Mine)		–	–	3	4 349 625	–	–	0.14
<b>ARM total</b>		–	47	65	46 368 976	–	0.20	0.28
		F2016						
		Fatalities	Reportable Injuries	Lost Time Injuries	Average total hours worked	Fatality Frequency Rate	Reportable Injury Frequency Rate	Lost Time Injury Frequency Rate
Beeshoek Mine	Northern Cape	–	–	1	2 875 684	–	–	0.07
Khumani Mine	Northern Cape	–	5	5	6 056 198	–	0.17	0.17
Black Rock Mine	Northern Cape	–	11	13	7 508 268	–	0.29	0.35
Cato Ridge Works	KZN	–	1	1	1 195 805	–	0.17	0.17
Machadodorp Works	Mpumalanga	–	–	1	366 794	–	–	0.55
Nkomati Mine	Mpumalanga	–	2	3	6 742 520	–	0.06	0.09
Two Rivers Mine	Mpumalanga	–	11	13	6 336 878	–	0.35	0.41
Modikwa Mine	Mpumalanga	–	23	40	12 527 670	–	0.37	0.64
Lubambe Mine	Zambia	–	3	5	4 751 467	–	0.13	0.21
<b>ARM total</b>		–	56	82	48 361 284	–	0.24	0.35
Ferrous division		–	17	21	18 002 749	–	0.19	0.23
Platinum division		–	36	56	25 607 068	–	0.28	0.44
Copper division		–	3	5	4 751 467	–	0.13	0.21
<b>ARM total</b>		–	56	82	48 361 284	–	0.23	0.34
<b>By Region</b>								
KwaZulu Natal (Cato Ridge Works)		–	1	1	1 195 805	–	0.17	0.17
Mpumalanga (Dwarsrivier, Modikwa, Two Rivers and Nkomati mines, and Machadodorp Works)		–	36	57	25 973 862	–	0.28	0.44
Northern Cape (Beeshoek, Black Rock and Khumani mines)		–	16	19	16 440 150	–	0.19	0.23
Zambia (Lubambe Mine)		–	3	5	4 751 467	–	0.13	0.21
<b>ARM total</b>		–	56	82	48 361 284	–	0.23	0.34

## SAFETY continued

## SECTION 54 AND SECTION 55 NOTICES

	Section 54 Notices					Shifts/days lost				
	F2017	F2016	F2015	F2014	F2013	F2017	F2016	F2015	F2014	F2013
<b>Ferrous division</b>										
Beeshoek Mine	–	–	–	–	1	–	–	–	–	6
Khumani Mine	1	–	3	2	2	–	–	11	–	–
Black Rock Mine	–	1	–	–	2	–	–	–	–	2
Dwarsrivier Mine*	**	5	3	3	2	–	11	12	18	7
<b>Platinum division</b>										
Nkomati Mine	5	4	2	–	–	13	14	5	–	–
Two Rivers Mine	3	7	1	–	–	12	17	6	–	–
Modikwa Mine	12	16	20	15	11	53	35	62	57	15
<b>Total</b>	<b>21</b>	33	29	20	18	<b>78</b>	77	96	75	30

	Section 55 Notices					Shifts/days lost				
	F2017	F2016	F2015	F2014	F2013	F2017	F2016	F2015	F2014	F2013
<b>Ferrous division</b>										
Beeshoek Mine	–	–	–	2	–	–	–	–	–	–
Khumani Mine	–	–	–	1	2	–	–	–	1	–
Black Rock Mine	–	–	–	1	3	–	–	–	–	–
Dwarsrivier Mine*	**	1	2	6	5	–	–	–	–	–
<b>Platinum division</b>										
Nkomati Mine	1	1	1	1	–	–	–	–	–	–
Two Rivers Mine	–	1	–	–	–	–	–	–	–	–
Modikwa Mine	–	–	–	8	–	–	–	–	–	–
<b>Total</b>	<b>1</b>	3	3	19	10	–	–	–	1	–

	F2017	F2016	F2015	F2014	F2013
Number of employees and contractors reported as the "total workforce". For purposes of safety and occupational health reporting, this is an average of those eligible for induction and/or medical surveillance, contributing to the safety statistics.	19 719	21 541	23 479	23 565	25 288

\* Dwarsrivier Mine was sold in July 2016.

\*\* Dwarsrivier Mine data not reported.

# OCCUPATIONAL HEALTH AND WELLNESS

## CHRONIC CONDITIONS

Medical condition	F2017			
	Newly diagnosed	Existing	Total of employees with condition	Percentage of total workforce affected
Hypertension	36	1931	1 967	10.0%
Diabetes Type 1	1	41	42	0.2%
Diabetes Type 2	16	405	421	2.1%
Epilepsy	0	10	10	0.1%
Upper Respiratory Tract Infections (URTI) (including repeats)			14 664	74.4%

## AUDIOMETRIC EXAMINATIONS

	F2017	F2016	F2015	F2014	F2013
Number of tests performed	38 723	29 715	42 627	42 871	44 163
Number of tests referred	137	93	144	197	81
Percentage of total (referred/performed)	0.35	0.31	0.34	0.46	0.18
Number of tests submitted for compensation	21	20	30	54	56
Percentage of total (comp. submit./performed)	0.05	0.07	0.07	0.13	0.13
Number of cases compensated	0	15	12	20	12
Percentage of total (compensated/referred)	0.00	16.13	8.33	10.15	14.81

## NOISE-INDUCED HEARING LOSS

	F2017	
	Number of employees	Percentage of total workforce
<b>Shifts in PLH (percentage loss of hearing)</b>		
PLH >5% to <10%	497	2.5%
PLH >10%	253	1.3%

## NOISE-INDUCED HEARING LOSS PER OPERATION

Operation	F2017		F2016		F2015		F2014	
	Referred	Submitted for compensation	Referred	Submitted for compensation	Referred	Submitted for compensation	Referred	Submitted for compensation
Beeshoek Mine	14	–	23	3	51	13	28	–
Khumani Mine	6	1	3	1	17	1	6	1
Black Rock Mine	9	1	9	–	5	2	53	11
Dwarsrivier Mine*	**	**	2	–	4	–	4	1
Cato Ridge Works	1	–	–	–	2	–	16	–
Machadodorp Works	4	–	–	–	–	–	1	–
Nkomati Mine	1	1	5	1	5	2	13	3
Two Rivers Mine	48	7	–	–	2	–	3	1
Modikwa Mine	54	11	51	15	58	12	73	37
<b>Total</b>	<b>137</b>	<b>21</b>	93	20	144	30	197	54

\* Dwarsrivier Mine was sold in July 2016.

\*\* Dwarsrivier Mine data not reported.

# ENVIRONMENT

## CARBON FOOTPRINT (tCO<sub>2</sub>e): SCOPE 1 AND 2 ON AN ATTRIBUTABLE BASIS

	F2017	F2016	F2015	F2014	F2013
Beeshoek Mine	36 189	37 211	42 934	36 614	42 528
Khumani Mine	144 442	146 394	132 638	129 918	132 840
Black Rock Mine	68 167	61 773	72 419	55 107	56 064
Dwarsrivier Mine*	**	32 221	28 891	26 979	26 544
Cato Ridge Works	352 623	335 633	420 536	443 379	417 863
Machadodorp Works	6 618	2 611	116 271	132 951	153 990
Nkomati Mine	197 968	213 557	202 826	197 117	202 575
Two Rivers Mine	124 948	126 467	114 399	112 846	103 090
Modikwa Mine	112 072	116 756	107 398	86 905	102 695
Lubambe Mine	4 227	4 955	7 409	6 625	5 581
Corporate office	164	168	410	217	410
<b>ARM total</b>	<b>1 047 418</b>	1 077 746	1 246 131	1 228 656	1 244 180
Ferrous division	608 040	615 843	813 691	824 948	829 829
Platinum division	434 988	456 780	424 622	396 868	408 360
Copper division	4 227	4 954	7 409	6 625	5 581
Corporate office	164	167	410	217	410
<b>ARM total</b>	<b>1 047 418</b>	1 077 744	1 246 132	1 228 656	1 244 180

## ELECTRICITY (MWH) – 100% BASIS

	F2017	F2016	F2015	F2014	F2013
Beeshoek Mine	34 937	35 627	38 396	38 970	40 559
Khumani Mine	206 023	200 131	186 112	175 213	165 930
Black Rock Mine	121 656	108 039	105 739	102 881	99 016
Dwarsrivier Mine*	**	58 122	56 218	50 872	51 653
Cato Ridge Works	500 701	473 292	608 273	639 712	608 353
Machadodorp Works	12 097	12 171	169 480	207 973	233 680
Nkomati Mine	329 210	350 847	353 249	348 612	338 938
Two Rivers Mine	215 371	213 076	209 616	202 558	188 859
Modikwa Mine	260 016	265 561	261 567	259 140	244 637
Lubambe Mine	104 316	103 776	113 801	118 962	73 510
Corporate office	163,901	160	Not material	Not material	364
<b>ARM total</b>	<b>1 784 491</b>	1 820 802	2 102 451	2 144 894	2 045 499
Ferrous division	875 415	887 382	1 164 218	1 215 622	1 199 190
Platinum division	804 597	829 484	824 432	810 310	772 435
Copper division	104 316	103 776	113 801	118 962	73 510
Corporate office	164	160	Not material	Not material	364
<b>ARM total</b>	<b>1 784 491</b>	1 820 802	2 102 451	2 144 894	2 045 499

\* Dwarsrivier Mine was sold in July 2016.

\*\* Dwarsrivier Mine data not reported.

## ENVIRONMENT continued

## DIESEL CONSUMPTION (000 LITRES) – 100% BASIS

	F2017	F2016	F2015	F2014	F2013
Beeshoek Mine	13 457	13 584	17 562	12 619	14 976
Khumani Mine	30 556	32 575	32 474	34 050	40 389
Black Rock Mine	4 919	5 153	5 271	4 529	4 289
Dwarsrivier Mine*	**	1 950	1 763	1 490	1 629
Cato Ridge Works	454	404	530	515	559
Machadodorp Works	450	596	787	804	844
Nkomati Mine	25 212	24 436	26 311	24 382	31 219
Two Rivers Mine	4 283	4 180	3 876	4 739	3 536
Modikwa Mine	4 534	4 744	4 688	5 136	6 442
Lubambe Mine	3 628	4 347	6 550	3 749	4 905
Corporate office	1	2	Not material	Not material	Not material
<b>ARM total</b>	<b>87 494</b>	91 974	99 812	92 013	108 788
Ferrous division	49 837	54 264	58 387	54 007	62 686
Platinum division	34 029	33 361	34 875	34 257	41 197
Copper division	3 628	4 347	6 550	3 749	4 905
Corporate office	1	2	Not material	Not material	Not material
<b>ARM total</b>	<b>87 494</b>	91 974	99 812	92 013	108 788

WATER ABSTRACTED (m<sup>3</sup>) – 100% BASIS

	F2017	F2016	F2015	F2014	F2013
Beeshoek Mine	4 552 211	5 023 349	5 237 869	6 608 293	7 964 901
Khumani Mine	3 999 709	4 634 128	3 647 534	3 440 654	4 041 671
Black Rock Mine	1 008 977	1 129 808	877 478	916 126	1 015 952
Dwarsrivier Mine*	**	449 792	639 268	290 175	133 912
Cato Ridge Works	222 329	242 051	322 400	394 247	376 054
Machadodorp Works	28 675	34 599	105 799	52 261	192 954
Nkomati Mine	1 248 453	3 108 637	3 577 751	3 396 863	2 924 876
Two Rivers Mine	1 655 673	2 443 191	1 407 380	1 323 625	1 102 135
Modikwa Mine	1 256 660	1 147 115	1 342 261	1 887 795	1 941 339
Lubambe Mine	323 306	853 630	1 176 366	1 098 425	857 580
<b>ARM total</b>	<b>14 295 993</b>	19 066 300	18 334 106	19 408 464	20 551 374
Ferrous division	9 811 901	11 513 727	10 830 348	11 701 756	13 725 444
Platinum division	4 160 786	6 698 943	6 327 392	6 608 283	5 968 350
Copper division	323 306	853 630	1 176 366	1 098 425	857 580
<b>ARM total</b>	<b>14 295 993</b>	19 066 300	18 334 106	19 408 464	20 551 374

\* Dwarsrivier Mine was sold in July 2016.

\*\* Dwarsrivier Mine data not reported.

# WORKFORCE BREAKDOWN

AS AT 30 JUNE 2017

## BREAKDOWN BY GENDER AND CONTRACT TYPE

	Male	Female	Total
Permanent employees	10 998	1 821	12 819
Temporary employees	284	132	416
Contractors	9 130	1 741	10 871
<b>Total employees and contractors</b>	<b>20 412</b>	<b>3 694</b>	<b>24 106</b>

## BREAKDOWN BY OPERATION

	Male	Female	Total
Beeshoek Mine (Northern Cape)	874	202	1 076
Khumani Mine (Northern Cape)	4 533	629	5 162
Black Rock Mine (Northern Cape)	4 444	572	5 016
Cato Ridge Works (KwaZulu Natal)	473	108	581
Machadodorp Works (Mpumalanga)	67	16	83
Modikwa Mine (Mpumalanga)	4 331	618	4 949
Two Rivers Mine (Mpumalanga)	2 612	607	3 219
Nkomati Mine (Mpumalanga)	1 426	746	2 172
Lubambe Mine	1 525	122	1 647
ARM Head Office (Gauteng)	127	74	201
<b>Total employees and contractors</b>	<b>20 412</b>	<b>3 694</b>	<b>24 106</b>

## BREAKDOWN BY REGION

	Male	Female	Total
Northern Cape	9 851	1 403	11 254
KwaZulu Natal	473	108	581
Mpumalanga	8 436	1 987	10 423
Zambia	1 525	122	1 647
Gauteng	127	74	201
<b>Total employees and contractors</b>	<b>20 412</b>	<b>3 694</b>	<b>24 106</b>

## BREAKDOWN BY AGE GROUP

	Male	Female	Total
< 30 years old	1 105	318	1 423
30 – 50 years old	7 546	1 479	9 025
> 50 years old	1 621	87	1 708
<b>Total full time employees (South Africa Only)</b>	<b>10 272</b>	<b>1 884</b>	<b>12 156</b>
<b>Total contractors (South Africa only)</b>	<b>8 615</b>	<b>1 688</b>	<b>10 303</b>
<b>Lubambe Mine (Zambia)</b>			
Total full time employees			1 062
Total expatriates			17
Total contractors			568
<b>Total Lubambe Mine Employees</b>			<b>1 647</b>
<b>Total Workforce</b>			
Total full time employees			13 218
Total expatriates			17
Total contractors			10 871
<b>Total ARM Workforce</b>			<b>24 106</b>



## WORKFORCE BREAKDOWN continued

## NEW HIRES (FULL TIME EMPLOYEES)

	Number of new hires			Rate of new hires (%)		
	Male	Female	Total	Male	Female	Total
<b>Breakdown by age group</b>						
< 30 years old	424	131	555	38%	41%	39%
30 – 50 years old	812	143	955	11%	10%	11%
> 50 years old	48	10	58	3%	11%	3%
<b>Total new hires</b>	<b>1 284</b>	<b>284</b>	<b>1 568</b>	<b>13%</b>	<b>15%</b>	<b>12%</b>
<b>Breakdown by region</b>						
Northern Cape			812			18%
KwaZulu Natal			1			0%
Mpumalanga			724			10%
Gauteng			22			11%
Zambia			9			1%
<b>Total new hires</b>			<b>1 568</b>			<b>12%</b>

## EMPLOYEE TURNOVER (FULL TIME EMPLOYEES)

	Total	Rate
<b>Breakdown by region</b>		
Northern Cape	54	1.1%
KwaZulu Natal	–	–
Mpumalanga	66	0.9%
Gauteng	7	3.8%
Zambia	20	1.9%
<b>Total employee turnover</b>	<b>147</b>	<b>1.1%</b>

## ABSENTEEISM (FULL TIME EMPLOYEES)

	Absentee shifts			Absentee rate (per hours scheduled) (%)		
	Male	Female	Total	Male	Female	Total
<b>Absenteeism</b>	<b>132 284</b>	<b>21 892</b>	<b>154 176</b>	<b>0.6%</b>	<b>0.5%</b>	<b>0.6%</b>
<b>Breakdown by region</b>						
Northern Cape			72 183			0.9%
KwaZulu Natal			2 134			2.9%
Mpumalanga			79 273			0.5%
Gauteng			521			0.1%
Zambia			65			0%
<b>Total absenteeism</b>			<b>154 176</b>			<b>0.6%</b>

## WORKFORCE BREAKDOWN continued

## TRAINING HOURS BY CATEGORY AND GENDER (PERMANENT STAFF)

	Total training hours			Average training hours		
	Male	Female	Total	Male	Female	Total
Top Management	42	16	58	2.6	5.3	3.1
Senior Management	985	294	1 279	13.1	19.6	14.2
Professionally qualified and experienced specialists and mid-management	11 516	4 942	16 457	37.3	58.8	41.9
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	157 281	28 057	185 338	64.3	71.9	65.4
Semi-skilled and discretionary decision making personnel	285 347	37 037	322 384	49.1	45.7	48.7
Unskilled and defined decision making personnel	209 124	83 604	292 708	133.4	147.7	137.2
<b>ARM Total</b>	<b>664 275</b>	<b>153 950</b>	<b>818 224</b>	<b>64.9</b>	<b>82.4</b>	<b>67.6</b>

## WORKFORCE BY RACE AND GENDER

Organisational level	Males					
	African	Coloured	Indian	White	Foreign	Total
Top Management	3	1	1	11	0	16
Senior Management	24	3	3	44	1	75
Professionally qualified and experienced specialists and mid-management	123	22	8	152	4	309
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	1327	284	26	775	33	2 445
Semi-skilled and discretionary decision making personnel	5173	251	3	111	277	5 815
Unskilled and defined decision making personnel	1461	33	0	8	66	1 568
<b>Total permanent male employees</b>	<b>8 111</b>	<b>594</b>	<b>41</b>	<b>1 101</b>	<b>381</b>	<b>10 228</b>
Temporary employees	38	1	2	3	0	44
<b>Total male workforce (South Africa only)</b>	<b>8 149</b>	<b>595</b>	<b>43</b>	<b>1 104</b>	<b>381</b>	<b>10 272</b>

## WORKFORCE BREAKDOWN continued

Organisational level	Females					Total
	African	Coloured	Indian	White	Foreign	
Top Management	3	0	0	0	0	3
Senior Management	5	0	0	9	1	15
Professionally qualified and experienced specialists and mid-management	47	10	3	23	1	84
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	252	35	5	97	1	390
Semi-skilled and discretionary decision making personnel	636	80	3	91	0	810
Unskilled and defined decision making personnel	553	10	0	3	0	566
<b>Total permanent female employees</b>	<b>1 496</b>	<b>135</b>	<b>11</b>	<b>223</b>	<b>3</b>	<b>1 868</b>
Temporary employees	14	2	0	0	0	16
<b>Total female workforce (South Africa only)</b>	<b>1 510</b>	<b>137</b>	<b>11</b>	<b>223</b>	<b>3</b>	<b>1 884</b>

Organisational level	Grand total
Top Management	19
Senior Management	90
Professionally qualified and experienced specialists and mid-management	393
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	2 835
Semi-skilled and discretionary decision making personnel	6 625
Unskilled and defined decision making personnel	2 134
<b>Total permanent full time employees</b>	<b>12 096</b>
Temporary employees	60
<b>Total full time employees (South Africa only)</b>	<b>12 156</b>