

GRI 102-8 Employment

	FY18			FY17			FY16			FY15		
	Male	Female	Australia	Male	Female	Australia	Male	Female	Australia	Male	Female	Australia
Permanent employees	191	52	243	181	46	227	204	63	267	185	55	240
Temporary employees ¹	9	9	18	0	0	0	0	0	0	12	4	16
Full-time employees	188	48	236	181	46	227	204	63	267			
Part-time employees ²	3	4	7	0	0	0	0	0	0			

Note 1 - Sandfire classifies temporary employees as casual workers employed for a specific time period

Note 2 - Sandfire reclassified its part-time employees in FY2018. These employees work on average less than 30 hours per week

Note 3 - A significant proportion of our work is undertaken by non-employees (contractors). This includes, but is not limited to, mining labour services, haulage and freight services, camp management services, and labour hire. The figures in 102-8 reflect Sandfire's direct employees only.

MM1 Land disturbed and rehabilitated (hectares)

LAND AREA USED FOR PRODUCTIVE PURPOSE	CY18	CY17	CY16	CY15
Total disturbance (hectares) ^{#%}	429	429	381	340
Total amount of land newly disturbed during the reporting period	126			
Land under rehabilitation (hectares) ^{‡%}		37	39	35
Total amount of land newly rehabilitated within the reporting period to the agreed end use (hectares)	0			
Total land disturbed and not yet rehabilitated (hectares)	554			

Disturbance record from Western Australian leases only

% Total disturbance is by calendar year

‡ Land under rehabilitation includes areas of mine activities on which rehabilitation earthworks have been completed in accordance with closure obligations.

Rehabilitation has not progressed or been verified from earthworks towards the agreed post-mining land use.

GRI 303-3 (a&c) Water withdrawal by source (ML)

	FY18		FY17		FY16		FY15	
	Volume	Quality	Volume	Quality	Volume	Quality	Volume	Quality
Volume of water withdrawn from:								
Ground water	1,288	fresh/ brackish	1,218	Fresh	1,463	Fresh	2,465	Fresh
Surface water	86	fresh/ brackish						
Total water withdrawn	1,374							

Note 1 - The reported water withdrawn in the FY16 and FY15 sustainability reports has been corrected following the verification process. We are working on ensuring our data collection and verification is accurate and consistent

Note 2 - Sandfire has no sources of sea water, produced water or third party water

Note 3 - In FY2018 Sandfire refined its understanding of the inputs into the DeGrussa water balance which includes rain water. This is represented as surface water

Note 4 - Sandfire has not withdrawn water from areas with water stress

GRI 303-4 Water discharge by destination and quality (ML)

	FY18				FY17		FY16		FY15	
	Volume	Areas with water stress	Freshwater or other	Quality	Volume	Treatment level	Volume	Treatment level	Volume	Treatment level
Volume of water discharged to:										
Total water withdrawn	116		Freshwater	Treated	185	Treated	225	Treated	453	Treated

Note 1 - Quality is treated or untreated

Note 2 - Water settles in settlement ponds before it is discharged to a fresh water ephemeral water course

Note 3 - Discharge in FY2017 was amended as a result of assurance activities

Note 4 - Sandfire does not discharge water to areas with water stress

Note 5 - No priority substances of concern have been identified

GRI 303-5 Water consumption

	FY18	FY17	FY16	FY15
	Volume	Volume	Volume	Volume
Total water consumption from all areas	1258	1033	1238	2012
Total water consumption from all areas with water stress				
Changes in water storage, if this has a significant water related impact				

MM2 Sites requiring biodiversity plans

	DEFINITIONS
What proportion of sites that require biodiversity management plans have them in place?	Require: in this context means required by regulation, consent, or other statutory obligation, or agreed to by the operation with a regulator or stakeholder.

MM3 Total overburden, rock, tailings and sludges

	FY18	FY17	FY16	FY15	RISKS ASSOCIATED	DEFINITIONS
Process wastes						
Waste rock - DeGrussa (tonnes)	147,905	429,402	471,386	472,566	Waste rock has the potential to be acid forming which can have negative impacts on the environment if managed incorrectly	Process wastes: wasted generated directly from the process flow.
Waste rock - Monty (tonnes)	181,260					Waste rock: barren rock in a mine, or mineralised material that is too low in grade to be mined and milled at a profit.
Total waste rock produced (tonnes)	329,165	429,402	471,386	472,566		
Tailings placed in the DeGrussa tailings facility (dmt)	636,572	701,791	684,888	480,536	Inadequate management of tailings can have significant impacts to the environment	Tailings: the waste material from ore after the economically recoverable metals and minerals have been extracted."
Tailings reused as paste backfill in the underground mine (dmt)	736,579	647,083	610,251	715,540		
Total Tailings produced (dmt)	1,373,151	1,348,874	1,295,139	1,196,076		
TOTAL WASTE ROCK AND TAILINGS	1,702,316	1,778,276	1,766,525	1,668,642		

Note 1 - The waste rock at DeGrussa decreased significantly in FY2018. This is attributed to reducing the jumbos we use on site from two to one reducing the rate of development. In addition, the nature of development decreased as we have completed the decline which is the biggest contributor to the movement of waste rock.

GRI 306-1 Water discharge by quality and destination

	FY18		
	Volume	Quality of water	Was the water reused by another
North Creek Discharge Point (DeGrussa)	116	Settled in transfer ponds	No
Central Drainage Discharge Point (DeGrussa)	0		
North Creek Discharge Point (Monty)	0		
Total	116		

DATA TABLES

KEY N/A

GRI 306-2 Waste by type and disposal method

		FY18	FY17	FY16	
	Measurement	Total volumes	Total volumes	Total volumes	Disposal method
Non-hazardous waste					
Class A Water	kgs	51			
General Waste to off site landfill	m ³	1,058	1,036	2,370	Landfill
General waste to onsite landfill	m ³	49	52	6,449	On-site landfill
Glass	Litres	3,285	4,732	54,500	Recycled
Plastic	tonnes	3	3	3	Recycled
Cardboard	tonnes	9	30	26	Recycled
Printer cartridges	kgs	59	92	108	Recycled
Steel	m ³	193	369	1,706	Recycled
Aluminium	tonne	1	3	5	Recycled
Hazardous waste					
Oil	litres	110,815	124,945	179,192	Licenced waste service
Tyres	count	341	304	453	Licenced waste service
Grease	litres	3,600	0	8,670	Licenced waste service
Batteries	count	86	63	166	Licenced waste service
Hydrocarbon contaminated waste	m ³	153	120	146	Licenced waste service

GRI 306-3 Significant spills

FY18					
	Number of spills	Location of spill	Volume of spill (litres)	Impact of spills	Action taken
Waste water	2	DeGrussa	6,000	Short term impact to the area at spill site. Less than 2 days for remediation. Spills reported to DWER	Spills were cleaned up straight away and investigations were undertaken to determine the cause of the incident with corrective actions put in place to prevent reoccurrence
Tailings	1	DeGrussa	1,500	Short term impact to the immediate area. Less than 5 days for remediation. Spill reported to DWER.	Spills were cleaned up straight away and investigations were undertaken to determine the cause of the incident with corrective actions put in place to prevent reoccurrence
Totals			7,500		

GRI 302: Energy consumption

	FY18	FY17	FY16	FY15
302-1				
Diesel - electricity	918,471	966,632	983,936	893,192
Diesel - non-transport	251,156	189,260	206,999	186,664
Diesel - transport	31,354	20,256	32,061	22,386
Diesel - total	1,200,981	1,176,148	1,222,996	1,102,242
Solar	68,766	30,155	5,407	-
Electricity consumption	652	680	728	661
Other	14,500	16,515	17,802	677
Total energy consumption inside the organisation (GL)	1,284,899	1,223,498	1,246,933	1,103,580
302-2				
Total energy consumption outside the organisation	0	0	0	0
302-3				
Energy from non renewable sources (GJ)	1,215,481	1,192,663	1,240,798	1,102,919
Energy from renewables sources (GJ)	68,766	30,155	5,407	0
Total electricity consumed (GJ)	652	680	728	661
Energy intensity ratio (inside organisation - GJ/ tonnes ore milled)	0.78	0.75	0.79	0.75
302-4				
Reduction in fossill fuel energy from using renewables (GJ)	184,597	81,696	0	0

Note 1 - Methods for calculating 302-1, 302-2 and 302-3 from the NGER Determination as applicable for the relevant reporting year

Note 2 - 302-4 baseline year FY2015. Energy savings estimated by using the GJ/MW hr rate for the diesel power station

Note 3 - 1,641,244 tonnes of ore milled for FY2018

Note 4 - Other includes oils, greases, mineral oil, LPG, gasoline, Jet A1 and acetylene

Note 5 - Definitions for diesel - electricity is as defined under NGERs

Note 6 - Electricity consumption excludes self generated electricity consumed on site to avoid double counting

DATA TABLES

KEY N/A

GRI 305: Emissions

	FY18	FY17	FY16	FY15
305-1				
Diesel - electricity	64,477	67,858	69,070	62,075
Diesel - non-transport	17,631	13,286	14,531	12,973
Diesel - transport	2,210	1,428	2,260	1,565
Diesel - total	84,318	82,572	85,861	76,613
Other - total	584	595	634	28
Total Scope 1 emissions (t CO2-e)	84,902	83,167	86,495	76,641
305-2				
Energy purchased	129	138	154	139
Total Scope 2 emissions (t CO2-e)	129	138	154	139
305-4				
GHG emissions intensity ratio (kg CO2-e/ tonnes ore milled)	52	51	55	52
305-5				
Reduction in emissions from using renewables (t CO2-e)	12,959	5,735	0	0

Note 1 - All methods from the NGER Determination as applicable for the relevant reporting year

Note 2 - Gases included in the Scope 1 & Scope 2 GHG emission calculation for 305-1&2 and 305-4&5 include CO2, CH4, N2O, HFCs, PFCs, SF6

Note 3 - The approach for calculating emissions includes those under operational control

Note 4 - Reduction of emissions due to renewables estimated using the CO2-e per kWh that would have been emitted if the power were generated using the diesel power station

Note 5 - Base year for calculation is 2012

Note 6 - GWP as per NGERs

Note 7 - Other includes oils, greases, mineral oil, LPG, gasoline, Jet A1, WWTP emissions, SF6 leakage and acetylene

GRI 401-1 Employee hires and turnover

	FY18						FY17						FY16					
	Male	Female	<30	30 - 50	>50	Australia	Male	Female	<30	30 - 50	>50	Australia	Male	Female	<30	30 - 50	>50	Australia
Employee hires	40	21	18	34	9	61	39	10	13	27	9	49	45	18	20	25	18	63
Rate of employee hires	0.16	0.09	0.07	0.14	0.04	0.5	0.15	0.04	0.06	0.12	0.04	0.22	0.16	0.07	0.07	0.09	0.07	0.23
Employee turnover	32	12	10	30	4	44	69	27	13	52	31	96	40	12	13	21	18	52
Rate of employee turnover	0.13	0.05	0.04	0.12	0.02	0.36	0.38	0.57	0.06	0.23	0.014	0.42	0.15	0.04	0.05	0.08	0.07	0.19

DATA TABLES

KEY N/A

GRI 403-8 Workers covered by an OHS management system

	FY18			FY17			FY16			FY15		
	Covered by an OHS management system	Covered by a system that has been internally audited	Covered by a system that has been externally audited	Covered by an OHS management system	Covered by a system that has been internally audited	Covered by a system that has been externally audited	Covered by an OHS management system	Covered by a system that has been internally audited	Covered by a system that has been externally audited	Covered by an OHS management system	Covered by a system that has been internally audited	Covered by a system that has been externally audited
% of total employees	100	100	100	100	100	100	100	100	100	100	100	100
% of workers who are not employees	100	100	100	100	100	100	100	100	100	100	100	100

Note 1 - No workers have been excluded from this disclosure

GRI 403-9 Work related injuries

	FY18		FY17		FY16		FY15	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Total Recordable Injury Frequency Rate	4.5	7.1	5	5	7	7.08	9	9.48

Note 1 - Frequency rates are calculated by adding the total injury numbers by total hours worked, divided by a million hours

Note 2 - Total number of hours worked in FY2018 = 353,771

Note 3 - Total hours includes direct employees and contract personnel who perform work at DeGrussa and exploration sites

	FY18				FY17				FY16				FY15									
	Contractors	Employees	All workers	Australia	Male	Female	Contractors	Employees	All workers	Australia	Male	Female	Contractors	Employees	All workers	Australia	Male	Female	Contractors	Employees	All workers	Australia
Recordable injury ¹	10	0	10	10	7	0	5	2	7	7	10	0	9	1	10	10	12	1	12	1	13	13
Lost time injury ²	0	0	0	0	1	0	0	1	1	1	1	0	1	0	1	1	2	0	2	0	2	2
Medically treated injury ³	2	0	2	2	2	0	2	0	2	2	5	0	5	0	5	5	5	0	5	0	5	5
Restricted duties injury ⁴	8	0	8	8	4	0	3	1	4	4	4	0	3	1	4	4	5	1	5	1	6	6
Occupational disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Work-related fatalities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note 1 - injuries that result in classification as lost time injury, restricted duties injury or medically treated injury

Note 2 - any injury or illness that results in one or more shifts away from work, excluding the day of the incident

Note 3 - any injury or illness that results in a loss of consciousness or requires medical treatment, but does not result in any lost or restricted shifts.

Note 4 - any injury or illness that results in a person not being physically or mentally able to perform their normal duties or the majority of their normal duties

DATA TABLES

KEY N/A

GRI 403-10 Work-related ill health

	FY18		FY17		FY16		FY15	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Fatalities as a result of work-related ill health for employees	0	0	0	0	0	0	0	0
Cases of recordable work-related ill health for employees	0	0	0	0	0	0	0	0
Fatalities as a result of work-related ill health for non-employee workers	0	0	0	0	0	0	0	0
Cases of recordable work-related ill health for non-employee workers	0	0	0	0	0	0	0	0

GRI 405-1 Diversity of governance bodies and employees

	FY18					FY17					FY16					FY15				
	M	F	<30	30 - 50	>50	M	F	<30	30 - 50	>50	M	F	<30	30 - 50	>50	M	F	<30	30 - 50	>50
% Board	83.33	16.67	0	0	100	83.3	16.7	0	0	100	83	17	0	0	100	100	0	0	0	100
% Senior executive	100	0	0	80	20	100	0	0	50	50	100	0	0	75	25	100	0	0	75	25
% Senior management											73	27	0	60	40					
% Management	78.57	21.43	3.45	72.41	24.14	80	20	0	64	36	100	0	24	59	17	71	29	0	60	40
% Non-management	77.94	22.06	20.10	56.9	23	78.8	21.2	20.2	61.1	18.7	75	25	22	59	19	77	23	24	59	17

Note 1 - in FY2016, in order to align with changes made to reporting required by the Workplace Gender Equality Agency, Managers were broken into two categories - Managers and Senior Managers

Note 2 - in FY2017, we reverted to one category of management

GRI 406-1 Discrimination incidents and actions taken

	FY18	FY17	FY16	FY15
No. Incidents	0	0	0	0
No. incidents reviewed	0	0	0	0
Remediation plans implemented				
Remediation plans implemented with results reviewed				
Incidents no longer subject to action				

DATA TABLES

KEY N/A

GRI 404-1 Average hours of training

	FY18	FY17	FY16	FY15
Male	28	5.1	9.5	
Female	14	3.6	9.5	
Executive			1.5	
Senior executive	3	1.5	10.7	
Management	11	2.12	85.8	
Non-management	28	5.3	5.6	
Total hours	6,059	1,090	2,458	

Note 1 - this does not cover employees who were undertaking further education under sponsorship

Note 2 - FY2015 data is not available

Note 3 - executive and senior executive category combined in FY2017

Note 4 - the increase in hours in FY2018 can be attributed to improvements in data captured

GRI 404-3 Percentage of employees receiving performance reviews

	FY18	FY17	FY16	FY15
Male	100	100	100	100
Female	100	100	100	100
Total number of employees	100	100	100	100