

## Rio Tinto releases third quarter production results

17 October 2017

Rio Tinto chief executive J-S Jacques said “The business performed very well in the September quarter, with a strong quarterly production performance and a wave of productivity improvements embedded through our operations. In particular, we are making good progress with further improvements to our world-class Pilbara iron ore business, including the opening of the Silvergrass mine and the implementation of AutoHaul™. We continue to shape our asset portfolio and announced \$2.5 billion of additional returns to shareholders from the proceeds of the Coal & Allied sale, demonstrating the robustness of our strategy and ability to invest in high-value growth whilst returning excess cash to shareholders. We have announced over \$8 billion of cash returns in 2017. Our relentless focus on cash generation and disciplined capital allocation will continue to deliver superior returns for our shareholders.”

		Q3 2017	vs Q3 2016	vs Q2 2017	9 mths 2017	vs 9 mths 2016
Pilbara iron ore shipments (100% basis)	Mt	85.8	+6%	+11%	240.2	+0%
Pilbara iron ore production (100% basis)	Mt	85.0	+2%	+6%	241.9	-1%
Bauxite	kt	12,867	+4%	+0%	37,034	+4%
Aluminium	kt	887	-3%	-0%	2,664	-1%
Mined copper	kt	120.6	-3%	-3%	329.5	-15%
Hard coking coal	kt	2,244	+3%	+44%	5,382	-10%
Titanium dioxide slag	kt	327	+23%	+4%	975	+30%
IOC iron ore pellets and concentrate	Mt	3.2	+8%	+18%	8.4	+7%

### Key points

- Pilbara iron ore shipments were 85.8 million tonnes in the third quarter (100 per cent basis), assisted by improved rail capacity and performance. This was six per cent higher than the third quarter of 2016, which was impacted by shiploader maintenance.
- Quarterly bauxite production was 12.9 million tonnes for a second consecutive quarter, four per cent higher than the third quarter of 2016, driven by strong performances at Gove and Weipa. Third party shipments for the third quarter were 8.2 million tonnes. Bauxite production guidance is revised to between 50 and 51 million tonnes (previously 48 to 50 million tonnes).
- Mined copper production was three per cent lower than the corresponding quarter of 2016 due to lower copper head grades at Rio Tinto Kennecott and Oyu Tolgoi.
- Mined copper guidance is revised to between 460 and 480 thousand tonnes (previously 500 to 550 thousand tonnes) following the third quarter impact of the delayed ramp-up of the Escondida expansion, and fourth quarter mine sequencing changes at Rio Tinto Kennecott.
- Titanium dioxide slag production increased by 23 per cent compared to the third quarter of 2016, reflecting higher market demand.
- As announced on 1 September 2017, Rio Tinto completed the sale of Coal & Allied to Yancoal Australia for total consideration of \$2.69 billion.
- On 21 September 2017, Rio Tinto announced a new \$2.5 billion share buy-back, comprised of a A\$700 million (approximately \$560 million) off-market buy-back tender in Rio Tinto Limited shares, and an additional \$1.9 billion of on-market purchases of Rio Tinto plc shares.
- In early October, a serious incident at the Rio Tinto Kennecott smelter resulted in a fatality. Investigations are currently underway.

*All figures in this report are unaudited. All currency figures in this report are US dollars, and comments refer to Rio Tinto's share of production, unless otherwise stated. To allow production numbers to be compared on a like-for-like basis, production from asset divestments completed in 2016 is excluded from Rio Tinto share of production data but assets sold in 2017 remain in comparisons.*

## IRON ORE

### Rio Tinto share of production (million tonnes)

	Q3 2017	vs Q3 2016	vs Q2 2017	9 mths 2017	vs 9 mths 2016
Pilbara Blend Lump	20.7	+4%	+5%	59.7	+4%
Pilbara Blend Fines	30.1	+2%	+7%	85.2	-2%
Robe Valley Lump	1.6	+6%	+8%	4.5	-0%
Robe Valley Fines	2.9	+6%	+30%	7.5	-11%
Yandicoogina Fines (HIY)	14.5	-2%	+7%	41.6	-3%
<b>Total Pilbara production</b>	<b>69.7</b>			<b>198.4</b>	
<b>Total Pilbara production (100% basis)</b>	<b>85.0</b>			<b>241.9</b>	

### ***Pilbara operations***

Pilbara operations produced 241.9 million tonnes (Rio Tinto share 198.4 million tonnes) in the first nine months of 2017, one per cent lower than the same period of 2016, mainly due to weather disruptions in the first half of the year. Third quarter production of 85.0 million tonnes (Rio Tinto share 69.7 million tonnes) was two per cent higher than the third quarter of 2016 and six per cent higher than the previous quarter, reflecting productivity enhancement projects across most sites.

Year-to-date sales of 240.2 million tonnes (Rio Tinto share 197.2 million tonnes) were in line with the same period of 2016. Strong third quarter sales of 85.8 million tonnes (Rio Tinto share 70.0 million tonnes) were assisted by improved rail capacity and performance. This was six per cent higher than the same period of last year, which was impacted by shiploader maintenance, and 11 per cent higher than the previous quarter.

Approximately 18 per cent of sales in the quarter were priced with reference to the prior quarter's average index lagged by one month. The remainder was sold either on current quarter average, current month average or on the spot market.

Approximately 65 per cent of sales in the quarter were made on a cost and freight (CFR) basis, with the remainder sold free on board (FOB).

### ***Pilbara projects***

Silvergrass mine was officially opened on 30 August this year by the Premier of Western Australia. Commissioning of the conveyor system will commence in October and remains on target for completion in the fourth quarter of this year. Silvergrass will ramp up to capacity in 2018.

The automation of the Pilbara train system (AutoHaul™) is continuing to progress well, with the successful completion of the first autonomous train, without on-board supervision, on the mainline between Tom Price and Paraburdoo (~100km). More than 50 per cent of all train kilometres are now completed in autonomous mode with drivers on-board for supervision. Operational improvements from AutoHaul™ are already being realised including reduced variability and increased speed across the network, helping to reduce average cycle times. The project is on schedule to be completed by the end of 2018.

### ***2017 guidance***

Rio Tinto's expected Pilbara shipments in 2017, subject to weather, remain unchanged at around 330 million tonnes on a 100 per cent basis.

## ALUMINIUM

### Rio Tinto share of production ('000 tonnes)

	Q3 2017	vs Q3 2016	vs Q2 2017	9 mths 2017	vs 9 mths 2016
<b>Rio Tinto Aluminium</b>					
Bauxite	12,867	+4%	+0%	37,034	+4%
Alumina	1,984	+0%	-2%	6,055	-1%
Aluminium	887	-3%	-0%	2,664	-1%

*Production from Lochaber in 2016 has been excluded from the comparable percentages above.*

#### **Bauxite**

Bauxite production of 12.9 million tonnes was four per cent higher than the third quarter of 2016 following strong quarterly production performances at both Gove and Weipa. Gove production was 11 per cent higher than the corresponding period in 2016 due to a planned production ramp-up associated with continued de-bottlenecking of capacity, whilst production at Weipa was up three per cent.

The production performance enabled the Group to achieve quarterly shipments of 8.2 million tonnes of bauxite to third parties in the third quarter, two per cent higher than the corresponding quarter of 2016.

#### **Amrun**

The Amrun project is advancing to plan with key construction activities continuing, including installation of the first three wharf modules and fabrication and transportation to site of the process plant beneficiation modules. The project remains on schedule for first shipment in the first half of 2019.

#### **Alumina**

Alumina production for the quarter was in line with the third quarter of 2016. A strong performance at the Yarwun refinery was offset by reduced production at the Queensland Alumina refinery due to the timing of major maintenance.

#### **Aluminium**

Quarterly aluminium production was three per cent lower than the third quarter of last year. Strong operational performances were achieved across most sites, reflecting process improvements that have been embedded throughout the business. This was offset by production curtailment at the Boyne smelter due to higher power prices in Queensland and by lower production at the non-managed Sohar smelter due to a power interruption incident on 4 August that led to the cessation of operations. The gradual re-start of operations commenced on 15 September.

#### **2017 guidance**

Rio Tinto's share of production in 2017 is revised to between 50 and 51 million tonnes of bauxite (previously 48 to 50 million tonnes), but otherwise remains unchanged at 8.0 to 8.2 million tonnes of alumina and 3.5 to 3.7 million tonnes of aluminium.

## COPPER & DIAMONDS

### Rio Tinto share of production ('000 tonnes)

	Q3 2017	vs Q3 2016	vs Q2 2017	9 mths 2017	vs 9 mths 2016
<b>Mined copper</b>					
Rio Tinto Kennecott	25.8	-29%	-41%	114.0	+6%
Escondida	82.5	+14%	+21%	177.9	-23%
Grasberg	0.0	N/A	N/A	0.0	N/A
Oyu Tolgoi	12.4	-21%	-1%	37.6	-28%
<b>Refined copper</b>					
Rio Tinto Kennecott	53.6	+37%	+164%	103.7	+16%
Escondida	21.6	+2%	+15%	48.6	-33%
<b>Diamonds ('000 carats)</b>					
Argyle	4,757	+36%	+48%	10,988	+6%
Diavik	1,177	+27%	+5%	3,432	+14%

#### ***Rio Tinto Kennecott***

Mined copper production in the third quarter of 2017 was 29 per cent lower than the corresponding period of 2016, as operations entered an anticipated area of lower grade. Refined copper production of 53.6 thousand tonnes was significantly higher than the third quarter of 2016, due to the consumption of concentrate which was built up during the planned 27 day smelter shutdown which occurred during May.

To optimise smelter utilisation, Rio Tinto Kennecott continues to toll and purchase third party concentrate, with 115.6 thousand tonnes received for processing in the first nine months of 2017. Trolled copper concentrate, which is smelted and returned to customers, is excluded from reported production figures.

The pushback of the south wall progressed during the quarter. It will extend the life of mine beyond 2019 and remains on track for completion in 2020.

Refinement of the mine plan will result in lower than expected copper grades in the fourth quarter, leading to a reduction in estimates for mined copper. The higher grade material is expected to be accessed in 2018.

In early October, a serious incident at the Rio Tinto Kennecott smelter resulted in a fatality. A full investigation will be completed before production and shipments resume.

#### ***Escondida***

Mined copper production at Escondida was 14 per cent higher than the third quarter of 2016, reflecting the full utilisation of the OPG1 concentrator. The return of operations to normal production levels following the labour union strike resulted in mined and refined copper being up 21 per cent and 15 per cent respectively compared to the previous quarter. As a consequence of the strike action in the first quarter of 2017, the commissioning of the Los Colorados Extension was delayed, which has impacted Rio Tinto's share of production in the third quarter.

#### ***Oyu Tolgoi***

Mined copper production for the quarter was, as anticipated, significantly lower than the same period in 2016 due to lower head grades and the drawdown of stockpiles. This is despite the operation achieving a 16 per cent increase in mill throughput compared to the third quarter of 2016.

### ***Oyu Tolgoi Underground Project***

New contractors continue to mobilise and the project workforce is now almost 3,000 on site, 89 per cent of whom are Mongolian nationals. Key project activities, including the sinking of shaft #2 and shaft #5, underground mine development and the conveyor to surface decline continue to progress. The first two buildings of the accommodation camp will be completed in the fourth quarter of 2017. Construction of the first draw bell is still expected in mid-2020.

### ***Grasberg***

Through a joint venture agreement with Freeport-McMoRan Inc. (Freeport), Rio Tinto is entitled to the cash flow associated with 40 per cent of material mined above an agreed threshold as a consequence of expansions and developments of the Grasberg facilities since 1998.

On 12 January 2017, the Government of Indonesia issued new mining regulations to address exports of unrefined metals, including copper concentrates, and other matters related to the mining sector. These regulations impact PT Freeport Indonesia's ('PT-FI') operating rights, including its right to continue to export concentrate without restriction, and, as a result, have a significant impact on Rio Tinto's share of production in 2017. Rio Tinto's full participation beyond 2021 is likely to be delayed due to the application of force majeure provisions in the joint venture agreement between Rio Tinto and PT-FI.

In April 2017, Freeport reached agreement with the Indonesian government to resume concentrate exports (which had been suspended) for a six month period expiring in October 2017. A further three month permit extension to January 2018 was granted by the government in October 2017. During this period, Freeport will continue to negotiate the new operating licenses and investment stability agreement. Discussions are continuing between Freeport and the Indonesian government to reach a mutually satisfactory longer-term agreement.

Rio Tinto is reporting its metal share for the third quarter as zero.

### ***Diamonds***

At Argyle, quarterly carat production was 36 per cent higher than the third quarter of 2016 due to the processing of higher grade alluvial tailings.

At Diavik, carats recovered in the third quarter of 2017 were 27 per cent higher than the corresponding period in 2016 due to higher recovered grades. Development of the A21 pipe remains on schedule.

### ***2017 guidance***

Rio Tinto's expected share of mined copper production for 2017 is revised to between 460 and 480 thousand tonnes (previously 500 to 550 thousand tonnes) after assessing the impact of the delayed ramp-up of the Los Colorados Extension project at Escondida and the impact of mine sequencing changes at Rio Tinto Kennecott. Refined copper production guidance remains unchanged at 185 to 225 thousand tonnes, subject to the impact of the investigation at the Rio Tinto Kennecott smelter.

Diamond production guidance for 2017 has been revised to between 19 and 22 million carats (previously 19 to 24 million carats).

## ENERGY & MINERALS

### Rio Tinto share of production

	Q3 2017	vs Q3 2016	vs Q2 2017	9 mths 2017	vs 9 mths 2016
<b>Coal</b>					
Hard coking coal	2,244	+3%	+44%	5,382	-10%
Semi-soft coking coal (a)	445	-58%	-28%	2,020	-36%
Thermal coal (a)	3,791	-13%	-23%	12,967	+4%
<b>Iron ore pellets and concentrate (million tonnes)</b>					
IOC	3.2	+8%	+18%	8.4	+7%
<b>Minerals ('000 tonnes)</b>					
Borates – B <sub>2</sub> O <sub>3</sub> content	140	+6%	+5%	396	+4%
Salt	1,227	-1%	-17%	3,555	-6%
Titanium dioxide slag	327	+23%	+4%	975	+30%
<b>Uranium ('000 lbs)</b>					
Energy Resources of Australia	962	-4%	+42%	2,539	-4%
Rössing	757	+20%	-12%	2,290	+14%

*Production from Bengalla in 2016 has been excluded from the comparable percentages above.*

*(a) On 1 September 2017, Rio Tinto completed the sale of Coal & Allied. This included Coal & Allied's 67.6% interest in the Hunter Valley Operations mine, 80% interest in the Mount Thorley mine and 55.6% interest in the Warkworth mine. Production from these mines is reported here until 1 September 2017.*

### Coal

Hard coking coal production in the quarter was three per cent higher than the third quarter of 2016 and significantly higher than the previous quarter as operations normalised at Hail Creek following the impact of Cyclone Debbie earlier in the year.

As announced on 1 September 2017, Rio Tinto completed the sale of Coal & Allied to Yancoal Australia for total consideration of \$2.69 billion, which included Coal & Allied's interests in the Hunter Valley Operations, Mount Thorley and Warkworth mines. The sale resulted in semi-soft coking coal and thermal coal production being lower than the previous quarter by 28 per cent and 23 per cent respectively. The sale, coupled with mine production sequencing changes at Hunter Valley Operations and Mount Thorley Warkworth, led to a 58 per cent reduction in semi-soft coking coal production compared to the third quarter of 2016.

### Iron Ore Company of Canada (IOC)

IOC pellet production of 2.9 million tonnes (Rio Tinto share 1.7 million tonnes) was eight per cent higher than the same quarter of 2016 and 24 per cent higher than the previous quarter, with pellet demand continuing to be strong and product mix being optimised to meet customer demand. Concentrate production for sale of 2.5 million tonnes (Rio Tinto share 1.4 million tonnes) was nine per cent higher than the third quarter of 2016 and 12 per cent higher than the previous quarter, reflecting improved asset reliability along with higher recovery.

### Borates

Borates production in the third quarter was six per cent higher than the corresponding period of 2016, with production aligned to market demand.

### Iron and Titanium (RTIT)

Titanium dioxide slag production in the third quarter was 23 per cent higher than the corresponding quarter in 2016, reflecting improved market demand. One of nine furnaces at Rio Tinto Fer et Titane (RTFT) remains idle, along with one of four furnaces at Richards Bay Minerals. RTFT expects to operate eight furnaces for the remainder of the year, compared with seven in 2016.

**Salt**

Salt production in the third quarter was marginally lower than the same period in 2016.

**Uranium**

Energy Resources of Australia continues to process existing stockpiles. Third quarter production in 2017 was four per cent lower than the corresponding period in 2016.

Production at Rössing was 20 per cent higher than the third quarter in 2016 due to higher grades and mill throughput.

**2017 guidance**

Following the divestment of Coal & Allied, guidance for Rio Tinto's expected share of 2017 production is revised to 13 to 14 million tonnes of thermal coal (previously 17 to 18 million tonnes) and 2.0 million tonnes of semi-soft coking coal (previously 3.3 to 3.9 million tonnes). Otherwise, guidance for Rio Tinto's expected share of 2017 production is unchanged at 7.2 to 7.8 million tonnes of hard coking coal, 11.4 to 12.4 million tonnes of iron ore pellets and concentrates, 0.5 million tonnes of boric oxide equivalent production, 1.2 to 1.3 million tonnes of titanium dioxide slag, and 6.5 to 7.5 million pounds of uranium.

**CORPORATE**

On 21 September 2017, Rio Tinto announced a new \$2.5 billion share buy-back, returning the proceeds of the sale of Coal & Allied to its shareholders. The buy-back is to be executed through a combination of an off-market buy-back tender, targeting approximately A\$700 million (approximately \$560 million) of Rio Tinto Limited shares, with the balance of approximately \$1.9 billion of additional funds being allocated to Rio Tinto's existing on-market purchase of Rio Tinto plc shares. The off-market buy-back of Rio Tinto Limited shares is expected to be undertaken in the fourth quarter of 2017, with the on-market buy-back of Rio Tinto plc shares expected to be completed by the end of 2018.

## EXPLORATION AND EVALUATION

Pre-tax and pre-divestment expenditure on exploration and evaluation charged to the profit and loss account in the first nine months of 2017 was \$297 million, compared with \$379 million in the first nine months of 2016. Approximately 49 per cent of this expenditure was incurred by central exploration, 30 per cent by Copper & Diamonds, 11 per cent by Energy & Minerals and the remainder by Iron Ore and Aluminium.

There were no significant divestments of central exploration properties in the third quarter of 2017.

### **Exploration highlights**

Rio Tinto has a strong portfolio of projects with activity in 15 countries across some eight commodities. The bulk of the exploration expenditure in this quarter was focused on copper targets in Australia, Chile, Kazakhstan, Mongolia, Papua New Guinea, Peru, Serbia, United States and Zambia. Mine-lease exploration continued at a number of Rio Tinto managed businesses including Pilbara Iron, Richards Bay Minerals, Oyu Tolgoi and Weipa.

A summary of activity for the quarter is as follows:

Product Group	Evaluation projects	Advanced projects	Greenfield programmes
Aluminium	Cape York, Australia	Amargosa, Brazil	Australia, Laos
Copper & Diamonds	Copper/molybdenum: Resolution, US Copper: La Granja, Peru Copper/gold: Oyu Tolgoi, Mongolia	Nickel: Tamarack, US Diamonds: Fort a la Corne, Canada	Copper: Australia, Botswana, Chile, Kazakhstan, Mongolia, Namibia, Papua New Guinea, Peru, Serbia, US, Zambia Nickel: Australia, Canada Diamonds: Canada
Energy & Minerals	Lithium borates: Jadar, Serbia Heavy mineral sands: Mutamba, Mozambique and Zulti South, South Africa Iron Ore: Simandou, Guinea Uranium: Roughrider, Canada	Potash: KP405, Canada	Uranium: Canada Heavy mineral sands: Tanzania
Iron Ore	Pilbara, Australia	Pilbara, Australia	



## **Forward-looking statements**

This announcement may include "forward-looking statements" within the meaning of the US Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts included in this announcement, including, without limitation, those regarding Rio Tinto's production forecast or guidance, financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to Rio Tinto's products and reserve and resource positions), are forward-looking statements. The words "intend", "aim", "project", "anticipate", "estimate", "plan", "believes", "expects", "may", "should", "will", "target", "set to", "assumes" or similar expressions, commonly identify such forward looking statements.

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Nothing in this announcement should be interpreted to mean that future earnings per share of Rio Tinto plc or Rio Tinto Limited will necessarily match or exceed its historical published earnings per share.

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# Rio Tinto production summary

## Rio Tinto share of production

Quarter			9 Months		% Change		
2016 Q3	2017 Q2	2017 Q3	2016 9 MTHS	2017 9 MTHS	Q3 17 vs Q3 16	Q3 17 vs Q2 17	9 MTHS 17 vs 9 MTHS 16

### Principal Commodities

		2016 Q3	2017 Q2	2017 Q3	2016 9 MTHS	2017 9 MTHS	Q3 17 vs Q3 16	Q3 17 vs Q2 17	9 MTHS 17 vs 9 MTHS 16
Alumina	('000 t)	1,981	2,024	<b>1,984</b>	6,088	<b>6,055</b>	0%	-2%	-1%
Aluminium	('000 t)	911	888	<b>887</b>	2,685	<b>2,664</b>	-3%	0%	-1%
Bauxite	('000 t)	12,422	12,865	<b>12,867</b>	35,583	<b>37,034</b>	4%	0%	4%
Borates	('000 t)	132	133	<b>140</b>	382	<b>396</b>	6%	5%	4%
Coal - hard coking	('000 t)	2,175	1,555	<b>2,244</b>	5,954	<b>5,382</b>	3%	44%	-10%
Coal - semi-soft coking	('000 t)	1,066	616	<b>445</b>	3,133	<b>2,020</b>	-58%	-28%	-36%
Coal - thermal	('000 t)	4,346	4,954	<b>3,791</b>	12,473	<b>12,967</b>	-13%	-23%	4%
Copper - mined	('000 t)	124.4	124.7	<b>120.6</b>	389.6	<b>329.5</b>	-3%	-3%	-15%
Copper - refined	('000 t)	60.2	39.1	<b>75.2</b>	161.7	<b>152.3</b>	25%	92%	-6%
Diamonds	('000 cts)	4,420	4,335	<b>5,933</b>	13,379	<b>14,420</b>	34%	37%	8%
Iron Ore	('000 t)	71,431	67,699	<b>72,903</b>	207,688	<b>206,828</b>	2%	8%	0%
Titanium dioxide slag	('000 t)	267	316	<b>327</b>	748	<b>975</b>	23%	4%	30%
Uranium	('000 lbs)	1,633	1,538	<b>1,718</b>	4,653	<b>4,829</b>	5%	12%	4%

### Other Metals & Minerals

		2016 Q3	2017 Q2	2017 Q3	2016 9 MTHS	2017 9 MTHS	Q3 17 vs Q3 16	Q3 17 vs Q2 17	9 MTHS 17 vs 9 MTHS 16
Gold - mined	('000 oz)	62.3	72.5	<b>59.1</b>	208.4	<b>197.5</b>	-5%	-18%	-5%
Gold - refined	('000 oz)	29.7	43.0	<b>54.1</b>	94.9	<b>148.3</b>	82%	26%	56%
Molybdenum	('000 t)	0.8	0.8	<b>1.4</b>	1.1	<b>3.0</b>	78%	85%	181%
Salt	('000 t)	1,240	1,476	<b>1,227</b>	3,794	<b>3,555</b>	-1%	-17%	-6%
Silver - mined	('000 oz)	1,011	1,118	<b>959</b>	2,971	<b>3,022</b>	-5%	-14%	2%
Silver - refined	('000 oz)	415	729	<b>731</b>	1,350	<b>1,861</b>	76%	0%	38%

Throughout this report, figures in italics indicate adjustments made since the figure was previously quoted on the equivalent page. Production figures are sometimes more precise than the rounded numbers shown, hence small differences may result between the total of the quarter figures and the year to date figures.

## Rio Tinto share of production

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>ALUMINA</b>								
<b>Production ('000 tonnes)</b>								
Jonqui�re (Vaudreuil)	100%	355	367	367	365	351	1,085	1,083
Jonqui�re (Vaudreuil) specialty Alumina plant	100%	29	31	31	32	30	84	93
Queensland Alumina	80%	758	789	739	756	720	2,289	2,216
S�o Luis (Alumar)	10%	92	96	89	93	94	275	276
Yarwun	100%	747	821	819	778	790	2,355	2,387
Rio Tinto total alumina production		1,981	2,104	2,047	2,024	1,984	6,088	6,055
<b>ALUMINIUM</b>								
<b>Production ('000 tonnes)</b>								
Australia - Bell Bay	100%	46	47	45	47	48	135	140
Australia - Boyne Island	59%	87	87	80	73	74	259	228
Australia - Tomago	52%	77	77	75	76	77	227	228
Canada - six wholly owned	100%	404	405	394	397	401	1,177	1,192
Canada - Alouette (Sept-�les)	40%	61	61	60	60	60	182	179
Canada - B�cancour	25%	29	28	28	26	28	84	83
France - Dunkerque	100%	71	71	70	71	71	208	212
Iceland - ISAL (Reykjavik)	100%	51	52	52	53	53	153	158
New Zealand - Tiwai Point	79%	68	68	66	67	67	201	200
Oman - Sohar	20%	19	19	19	19	7	58	45
Rio Tinto total aluminium production		911	915	889	888	887	2,685	2,664
<b>BAUXITE</b>								
<b>Production ('000 tonnes) (a)</b>								
Gove	100%	2,521	2,169	2,388	2,780	2,809	6,921	7,977
Porto Trombetas	12%	533	516	357	489	492	1,460	1,338
Sangaredi	(b)	1,726	1,735	1,665	1,791	1,670	5,475	5,125
Weipa	100%	7,642	7,700	6,893	7,805	7,895	21,726	22,594
Rio Tinto total bauxite production		12,422	12,120	11,303	12,865	12,867	35,583	37,034

## Rio Tinto share of production

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>BORATES</b>								
<b>Production ('000 tonnes B<sub>2</sub>O<sub>3</sub> content)</b>								
Rio Tinto Borates - borates	100%	132	121	123	133	140	382	396
<b>COAL - hard coking</b>								
<b>Rio Tinto Coal Australia ('000 tonnes)</b>								
Hail Creek Coal (c)	82%	1,248	1,205	930	822	1,276	3,674	3,028
Kestrel Coal (c)	80%	926	981	653	733	968	2,280	2,354
Rio Tinto total hard coking coal production		2,175	2,187	1,583	1,555	2,244	5,954	5,382
<b>COAL - semi-soft coking</b>								
<b>Rio Tinto Coal Australia ('000 tonnes)</b>								
Hunter Valley (d)	0%	842	581	541	192	301	1,959	1,034
Mount Thorley (d)	0%	150	283	269	311	119	844	700
Warkworth (d)	0%	75	106	149	112	25	331	286
Rio Tinto total semi-soft coking coal production		1,066	969	959	616	445	3,133	2,020
<b>COAL - thermal</b>								
<b>Rio Tinto Coal Australia ('000 tonnes)</b>								
Hail Creek Coal (c)	82%	787	746	874	881	851	2,343	2,605
Hunter Valley (d)	0%	1,596	1,724	1,927	2,393	1,428	5,058	5,747
Kestrel Coal (c)	80%	225	217	127	141	226	460	494
Mount Thorley (d)	0%	606	828	450	597	562	1,407	1,609
Warkworth (d)	0%	1,131	739	845	943	725	3,205	2,512
Rio Tinto total thermal coal production		4,346	4,254	4,222	4,954	3,791	12,473	12,967

## Rio Tinto share of production

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>COPPER</b>								
<b>Mine production ('000 tonnes) (a)</b>								
Bingham Canyon	100%	36.2	45.1	44.3	44.0	25.8	107.6	114.0
Escondida	30%	72.6	73.4	27.2	68.3	82.5	229.7	177.9
Grasberg - Joint Venture (e)	40%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oyu Tolgoi (f)	34%	15.6	15.2	12.8	12.5	12.4	52.2	37.6
Rio Tinto total mine production		124.4	133.8	84.2	124.7	120.6	389.6	329.5
<b>Refined production ('000 tonnes)</b>								
Escondida	30%	21.2	21.5	8.2	18.8	21.6	72.2	48.6
Rio Tinto Kennecott	100%	39.1	67.0	29.8	20.3	53.6	89.5	103.7
Rio Tinto total refined production		60.2	88.4	38.0	39.1	75.2	161.7	152.3
<b>DIAMONDS</b>								
<b>Production ('000 carats)</b>								
Argyle	100%	3,493	3,584	3,016	3,216	4,757	10,374	10,988
Diavik	60%	927	989	1,136	1,119	1,177	3,005	3,432
Rio Tinto total diamond production		4,420	4,574	4,152	4,335	5,933	13,379	14,420
<b>GOLD</b>								
<b>Mine production ('000 ounces) (a)</b>								
Bingham Canyon	100%	41.5	57.2	54.1	54.3	33.6	95.9	142.1
Escondida	30%	8.3	11.3	3.4	10.2	15.2	28.5	28.8
Grasberg - Joint Venture (e)	40%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oyu Tolgoi (f)	34%	12.5	16.6	8.3	8.0	10.4	84.0	26.7
Rio Tinto total mine production		62.3	85.1	65.8	72.5	59.1	208.4	197.5
<b>Refined production ('000 ounces)</b>								
Rio Tinto Kennecott	100%	29.7	40.6	51.1	43.0	54.1	94.9	148.3

## Rio Tinto share of production

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>IRON ORE</b>								
<b>Production ('000 tonnes) (a)</b>								
Hamersley mines	(g)	52,302	54,848	48,664	48,674	52,921	151,054	150,259
Hamersley - Channar	60%	1,764	1,119	1,635	1,903	1,596	4,719	5,134
Hope Downs	50%	5,888	5,794	5,218	6,287	5,978	17,711	17,483
Iron Ore Company of Canada	59%	2,925	2,743	2,579	2,683	3,171	7,918	8,433
Robe River - Pannawonica (Mesas J and A)	53%	4,208	4,493	3,809	3,676	4,461	12,879	11,946
Robe River - West Angelas	53%	4,344	4,636	4,322	4,475	4,776	13,407	13,573
Rio Tinto iron ore production ('000 tonnes)		71,431	73,633	66,226	67,699	72,903	207,688	206,828
Breakdown of Production:								
Pilbara Blend Lump		19,957	20,443	19,207	19,780	20,700	57,317	59,687
Pilbara Blend Fines		29,591	30,795	27,026	28,049	30,113	86,765	85,187
Robe Valley Lump		1,484	1,625	1,453	1,459	1,570	4,497	4,482
Robe Valley Fines		2,725	2,868	2,357	2,217	2,891	8,382	7,465
Yandicoogina Fines (HIY)		14,750	15,159	13,605	13,512	14,458	42,809	41,575
Pilbara iron ore production ('000 tonnes)		68,506	70,890	63,647	65,016	69,732	199,770	198,395
IOC Concentrate		1,334	1,124	1,109	1,299	1,450	3,783	3,858
IOC Pellets		1,591	1,618	1,470	1,384	1,722	4,135	4,576
IOC iron ore production ('000 tonnes)		2,925	2,743	2,579	2,683	3,171	7,918	8,433
Breakdown of Sales:								
Pilbara Blend Lump		17,014	18,071	16,033	18,218	18,044	49,858	52,295
Pilbara Blend Fines		30,132	34,842	30,497	28,779	32,421	91,679	91,697
Robe Valley Lump		1,346	1,502	1,176	1,262	1,391	3,894	3,829
Robe Valley Fines		3,069	3,053	2,373	2,370	3,174	8,889	7,917
Yandicoogina Fines (HIY)		15,008	14,969	13,120	13,371	14,963	42,094	41,454
Pilbara iron ore sales ('000 tonnes)		66,569	72,437	63,199	64,000	69,993	196,414	197,191
IOC Concentrate		1,281	1,148	1,193	939	1,362	3,751	3,494
IOC Pellets		1,516	1,764	1,415	1,489	1,590	4,098	4,493
IOC Iron ore sales ('000 tonnes)		2,797	2,912	2,608	2,428	2,952	7,849	7,987
Rio Tinto iron ore sales ('000 tonnes)		69,366	75,350	65,806	66,428	72,944	204,263	205,179

## Rio Tinto share of production

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>MOLYBDENUM</b>								
<b>Mine production ('000 tonnes) (a)</b>								
Bingham Canyon	100%	0.8	1.8	0.9	0.8	1.4	1.1	3.0
<b>SALT</b>								
<b>Production ('000 tonnes)</b>								
Dampier Salt	68%	1,240	1,386	852	1,476	1,227	3,794	3,555
<b>SILVER</b>								
<b>Mine production ('000 ounces) (a)</b>								
Bingham Canyon	100%	522	751	711	669	357	1,193	1,737
Escondida	30%	369	397	163	370	521	1,394	1,054
Grasberg - Joint Venture (e)	40%	0	0	0	0	0	0	0
Oyu Tolgoi (f)	34%	121	91	72	79	80	385	231
Rio Tinto total mine production		1,011	1,239	946	1,118	959	2,971	3,022
<b>Refined production ('000 ounces)</b>								
Rio Tinto Kennecott	100%	415	465	402	729	731	1,350	1,861
<b>TITANIUM DIOXIDE SLAG</b>								
<b>Production ('000 tonnes)</b>								
Rio Tinto Iron & Titanium (h)	100%	267	300	332	316	327	748	975
<b>URANIUM</b>								
<b>Production ('000 lbs U<sub>3</sub>O<sub>8</sub>) (i)</b>								
Energy Resources of Australia	68%	1,004	908	900	678	962	2,635	2,539
Rössing	69%	628	781	673	860	757	2,017	2,290
Rio Tinto total uranium production		1,633	1,690	1,573	1,538	1,718	4,653	4,829



**Production data notes:**

Production figures are sometimes more precise than the rounded numbers shown, hence small differences may result between the total of the quarter figures and the year to date figures.

(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which represent production of marketable quantities of ore plus concentrates and pellets.

(b) Rio Tinto has a 22.95% shareholding in the Sangaredi mine but benefits from 45.0% of production.

(c) Kestrel and Hail Creek produce hard coking coal and thermal coal through their mining operations. Both mines may blend coal types at ports.

(d) On 1 September 2017, Rio Tinto completed the sale of Coal & Allied, a wholly owned subsidiary of Rio Tinto Coal Australia (RTCA) and production from these assets is included to this date. This included Coal & Allied's 67.6% interest in the Hunter Valley Operations mine, 80% interest in the Mount Thorley mine and 55.6% interest in the Warkworth mine. In an earlier restructuring of the Coal & Allied group completed on 3 February 2016, Rio Tinto had obtained 100% of Coal & Allied and retained a 67.6% interest in the newly created Hunter Valley Operations joint venture. Prior to restructuring, Rio Tinto's interest in the Hunter Valley Operations, Mount Thorley and Warkworth mines was 80%, 64% and 44.46% respectively.

(e) Through a joint venture agreement with Freeport-McMoRan (FCX), Rio Tinto is entitled to 40% of additional material mined as a consequence of expansions and developments of the Grasberg facilities since 1998.

(f) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources Ltd.

(g) Includes 100% of production from Paraburdoo, Mt Tom Price, Marandoo, Yandicoogina, Brockman, Nammuldi, Silvergrass and the Eastern Range mines. Whilst Rio Tinto owns 54% of the Eastern Range mine, under the terms of the joint venture agreement, Hamersley Iron manages the operation and is obliged to purchase all mine production from the joint venture and therefore all of the production is included in Rio Tinto's share of production.

(h) Quantities comprise 100% of Rio Tinto Fer et Titane and Rio Tinto's 74% interest in Richards Bay Minerals (RBM).

(i) ERA and Rössing production reported are drummed U3O8.

**The Rio Tinto percentage shown above is at 30 September 2017.**

Rio Tinto's interest in the Lochaber aluminium smelter and Bengalla mine were sold in 2016. No data for these operations are included in the Share of production table.

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>ALUMINA</b>								
<b>Smelter Grade Alumina - Aluminium Group</b>								
Alumina production ('000 tonnes)								
<i>Australia</i>								
Queensland Alumina Refinery - Queensland	80.0%	947	987	924	946	900	2,861	2,769
Yarwun refinery - Queensland	100.0%	747	821	819	778	790	2,355	2,387
<i>Brazil</i>								
São Luis (Alumar) refinery	10.0%	916	957	895	931	937	2,750	2,763
<i>Canada</i>								
Jonquière (Vaudreuil) refinery - Quebec (a)	100.0%	355	367	367	365	351	1,085	1,083
<i>(a) Jonquière's (Vaudreuil's) production shows smelter grade alumina only and excludes hydrate produced and used for specialty alumina.</i>								
<b>Specialty Alumina - Aluminium Group</b>								
Specialty alumina production ('000 tonnes)								
<i>Canada</i>								
Jonquière (Vaudreuil) plant – Quebec	100.0%	29	31	31	32	30	84	93

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>ALUMINIUM</b>								
<b>Primary Aluminium</b>								
Primary aluminium production ('000 tonnes)								
<i>Australia</i>								
Bell Bay smelter - Tasmania	100.0%	46	47	45	47	48	135	140
Boyne Island smelter - Queensland	59.4%	147	147	135	124	125	436	384
Tomago smelter - New South Wales	51.6%	149	149	145	147	149	441	441
<i>Canada</i>								
Alma smelter - Quebec	100.0%	117	117	114	112	115	350	341
Alouette (Sept-Îles) smelter - Quebec	40.0%	152	153	149	149	150	456	448
Arvida smelter - Quebec	100.0%	43	43	41	43	43	129	127
Arvida AP60 smelter - Quebec	100.0%	15	15	15	15	14	45	44
Bécancour smelter - Quebec	25.1%	114	110	112	106	113	335	331
Grande-Baie smelter - Quebec	100.0%	58	58	57	57	58	170	172
Kitimat smelter - British Columbia	100.0%	109	109	107	109	108	299	323
Laterrière smelter - Quebec	100.0%	62	63	61	61	63	185	185
<i>France</i>								
Dunkerque smelter	100.0%	71	71	70	71	71	208	212
<i>Iceland</i>								
ISAL (Reykjavik) smelter	100.0%	51	52	52	53	53	153	158
<i>New Zealand</i>								
Tiwai Point smelter	79.4%	85	85	84	84	84	253	252
<i>Oman</i>								
Sohar smelter	20.0%	95	97	96	95	35	289	226
<i>United Kingdom</i>								
Lochaber smelter (a)	0.0%	12	10	-	-	-	36	-

(a) On 16 December 2016, Rio Tinto completed the sale of its 100% interest in the Lochaber aluminium smelter.

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>BAUXITE</b>								
Bauxite production ('000 tonnes)								
<i>Australia</i>								
Gove mine - Northern Territory	100.0%	2,521	2,169	2,388	2,780	2,809	6,921	7,977
Weipa mine - Queensland	100.0%	7,642	7,700	6,893	7,805	7,895	21,726	22,594
<i>Brazil</i>								
Porto Trombetas (MRN) mine	12.0%	4,441	4,296	2,974	4,071	4,103	12,166	11,148
<i>Guinea</i>								
Sangaredi mine (a)	23.0%	3,836	3,856	3,699	3,979	3,711	12,167	11,390
<b>Rio Tinto share of bauxite shipments</b>								
Share of total bauxite shipments ('000 tonnes)		12,743	11,996	11,605	12,164	12,913	35,579	36,683
Share of third party bauxite shipments ('000 tonnes)		8,093	7,345	6,927	7,962	8,250	21,962	23,140

(a) Rio Tinto has a 22.95% shareholding in the Sangaredi mine but benefits from 45.0% of production.

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>BORATES</b>								
<b>Rio Tinto Borates - borates</b>	100.0%							
<i>US</i>								
Borates ('000 tonnes) (a)		132	121	123	133	<b>140</b>	382	<b>396</b>
<i>(a) Production is expressed as B<sub>2</sub>O<sub>3</sub> content.</i>								
<b>COAL</b>								
<b>Rio Tinto Coal Australia</b>								
<b>Bengalla mine (a)</b>	0.0%							
<i>New South Wales</i>								
Thermal coal ('000 tonnes)		-	-	-	-	-	1,476	-
<b>Hail Creek Coal mine</b>	82.0%							
<i>Queensland</i>								
Hard coking coal ('000 tonnes)		1,522	1,470	1,134	1,002	<b>1,556</b>	4,480	<b>3,692</b>
Thermal coal ('000 tonnes)		960	910	1,065	1,074	<b>1,037</b>	2,857	<b>3,177</b>
<b>Hunter Valley Operations (b)</b>	0.0%							
<i>New South Wales</i>								
Semi-soft coking coal ('000 tonnes)		1,245	859	800	284	<b>445</b>	2,861	<b>1,529</b>
Thermal coal ('000 tonnes)		2,361	2,550	2,851	3,539	<b>2,112</b>	7,375	<b>8,502</b>
<b>Kestrel Coal mine</b>	80.0%							
<i>Queensland</i>								
Hard coking coal ('000 tonnes)		1,158	1,227	816	916	<b>1,210</b>	2,850	<b>2,943</b>
Thermal coal ('000 tonnes)		281	271	159	177	<b>282</b>	574	<b>617</b>
<b>Mount Thorley Operations (b)</b>	0.0%							
<i>New South Wales</i>								
Semi-soft coking coal ('000 tonnes)		187	353	337	389	<b>149</b>	1,067	<b>876</b>
Thermal coal ('000 tonnes)		758	1,035	562	746	<b>703</b>	1,815	<b>2,011</b>

*Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.*

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>COAL (continued)</b>								
<b>Warkworth mine (b)</b>	0.0%							
<i>New South Wales</i>								
Semi-soft coking coal ('000 tonnes)		135	190	268	202	44	620	514
Thermal coal ('000 tonnes)		2,035	1,330	1,520	1,696	1,305	5,895	4,521
Total hard coking coal production ('000 tonnes)		2,680	2,697	1,950	1,918	2,766	7,331	6,635
Total semi-soft coking coal production ('000 tonnes)		1,567	1,402	1,405	875	639	4,547	2,919
Total thermal coal production ('000 tonnes)		6,395	6,096	6,156	7,232	5,439	19,993	18,827
Total coal production ('000 tonnes)		10,642	10,196	9,512	10,026	8,844	31,871	28,382
Total coal sales ('000 tonnes)		10,129	10,241	8,792	9,871	9,298	31,532	27,962
<b>Rio Tinto Coal Australia share (c)</b>								
Share of hard coking coal sales ('000 tonnes)		2,332	2,395	1,524	1,717	2,511	6,309	5,753
Share of semi-soft coal sales ('000 tonnes) (d)		904	1,043	765	759	485	3,101	2,010
Share of thermal coal sales ('000 tonnes) (d)		3,958	3,979	3,946	4,539	3,804	12,504	12,289

(a) Rio Tinto sold its interest in the Bengalla Joint Venture with an effective date of 1 March 2016.

(b) On 1 September 2017, Rio Tinto completed the sale of Coal & Allied, a wholly owned subsidiary of Rio Tinto Coal Australia (RTCA) and production from these assets is included to this date. This included Coal & Allied's 67.6% interest in the Hunter Valley Operations mine, 80% interest in the Mount Thorley mine and 55.6% interest in the Warkworth mine. In an earlier restructuring of the Coal & Allied group completed on 3 February 2016, Rio Tinto had obtained 100% of Coal & Allied and retained a 67.6% interest in the newly created Hunter Valley Operations joint venture. Prior to restructuring, Rio Tinto's interest in the Hunter Valley Operations, Mount Thorley and Warkworth mines was 80%, 64% and 44.46% respectively.

(c) Kestrel and Hail Creek produce hard coking coal and thermal coal through their mining operations. Both mines may blend coal types at ports.

(d) Sales relate only to coal mined by the operations and exclude traded coal.

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>COPPER &amp; GOLD</b>								
<b>Escondida</b>	30.0%							
<i>Chile</i>								
Sulphide ore to concentrator ('000 tonnes)		20,787	19,866	8,054	18,777	<b>24,080</b>	64,881	<b>50,911</b>
Average copper grade (%)		0.87	1.02	1.01	1.07	<b>1.06</b>	0.94	<b>1.06</b>
Mill production (metals in concentrates):								
Contained copper ('000 tonnes)		153.2	168.6	67.7	167.0	<b>204.1</b>	510.6	<b>438.8</b>
Contained gold ('000 ounces)		28	38	11	34	<b>51</b>	95	<b>96</b>
Contained silver ('000 ounces)		1,229	1,323	543	1,234	<b>1,737</b>	4,648	<b>3,514</b>
Recoverable copper in ore stacked for leaching ('000 tonnes) (a)		88.9	76.4	22.8	60.7	<b>70.8</b>	255.0	<b>154.3</b>
Refined production from leach plants:								
Copper cathode production ('000 tonnes)		70.5	71.5	27.2	62.8	<b>71.9</b>	240.6	<b>161.9</b>
<i>(a) The calculation of copper in material mined for leaching is based on ore stacked at the leach pad.</i>								
<b>Freeport-McMoRan</b>								
<b>Grasberg mine (a)</b>	0.0% (b)							
<i>Papua, Indonesia</i>								
Ore treated ('000 tonnes)		16,608	15,630	7,849	11,242	<b>16,625</b>	44,998	<b>35,715</b>
Average mill head grades:								
Copper (%)		1.02	1.08	1.15	1.03	<b>0.92</b>	0.86	<b>1.00</b>
Gold (g/t)		0.69	0.97	1.17	1.16	<b>0.94</b>	0.57	<b>1.06</b>
Silver (g/t)		3.45	3.67	5.26	4.09	<b>2.23</b>	2.89	<b>3.48</b>
Production of metals in concentrates:								
Copper in concentrates ('000 tonnes)		153.8	153.1	81.0	103.9	<b>139.6</b>	346.2	<b>324.5</b>
Gold in concentrates ('000 ounces)		310	409	248	358	<b>420</b>	685	<b>1,025</b>
Silver in concentrates ('000 ounces)		1,170	1,237	667	900	<b>709</b>	2,558	<b>2,276</b>
Sales of payable metals in concentrates: (c)								
Copper in concentrates ('000 tonnes)		153.7	140.6	61.7	124.6	<b>131.1</b>	337.4	<b>317.4</b>
Gold in concentrates ('000 ounces)		307	374	183	429	<b>394</b>	681	<b>1,007</b>
Silver in concentrates ('000 ounces)		928	907	404	851	<b>532</b>	2,001	<b>1,787</b>

(a) Through a joint venture agreement with Freeport-McMoRan (FCX), Rio Tinto is entitled to 40% of additional material mined as a consequence of expansions and developments of the Grasberg facilities since 1998. The Q3 2017 results show the forecast from FCX's most recent five-year plan, because FCX is not releasing its actual 100% operating data for Q3 2017 until the release of its 2017 third-quarter results on 25 October 2017.

(b) Rio Tinto share of Grasberg production is 40% of the expansion.

(c) Net of smelter deductions.

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>COPPER &amp; GOLD (continued)</b>								
<b>Rio Tinto Kennecott</b>								
<b>Bingham Canyon mine</b>	100.0%							
<i>Utah, US</i>								
Ore treated ('000 tonnes)		9,698	8,827	9,508	10,709	<b>10,092</b>	24,596	<b>30,309</b>
Average ore grade:								
Copper (%)		0.41	0.56	0.51	0.47	<b>0.29</b>	0.48	<b>0.42</b>
Gold (g/t)		0.25	0.31	0.32	0.29	<b>0.18</b>	0.21	<b>0.26</b>
Silver (g/t)		2.56	3.33	3.24	2.66	<b>1.51</b>	2.09	<b>2.46</b>
Molybdenum (%)		0.031	0.040	0.025	0.025	<b>0.032</b>	0.024	<b>0.028</b>
Copper concentrates produced ('000 tonnes)		154	190	189	205	<b>148</b>	458	<b>542</b>
Average concentrate grade (% Cu)		23.4	23.8	23.3	21.5	<b>17.3</b>	23.4	<b>21.0</b>
Production of metals in copper concentrates:								
Copper ('000 tonnes) (a)		36.2	45.1	44.3	44.0	<b>25.8</b>	107.6	<b>114.0</b>
Gold ('000 ounces)		41	57	54	54	<b>34</b>	96	<b>142</b>
Silver ('000 ounces)		522	751	711	669	<b>357</b>	1,193	<b>1,737</b>
Molybdenum concentrates produced ('000 tonnes):		1.6	3.4	1.7	1.5	<b>2.8</b>	2.2	<b>6.0</b>
Molybdenum in concentrates ('000 tonnes)		0.8	1.8	0.9	0.8	<b>1.4</b>	1.1	<b>3.0</b>
<b>Kennecott smelter &amp; refinery</b>								
	100.0%							
Copper concentrates smelted ('000 tonnes)		220	207	136	160	<b>258</b>	545	<b>554</b>
Copper anodes produced ('000 tonnes) (b)		56.1	42.7	33.7	32.6	<b>50.6</b>	121.1	<b>117.0</b>
Production of refined metal:								
Copper ('000 tonnes)		39.1	67.0	29.8	20.3	<b>53.6</b>	89.5	<b>103.7</b>
Gold ('000 ounces) (c)		29.7	40.6	51.1	43.0	<b>54.1</b>	94.9	<b>148.3</b>
Silver ('000 ounces) (c)		415	465	402	729	<b>731</b>	1,350	<b>1,861</b>

(a) Includes a small amount of copper in precipitates.

(b) New metal excluding recycled material.

(c) Includes gold and silver in intermediate products.

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**



## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>COPPER &amp; GOLD (continued)</b>								
<b>Turquoise Hill Resources</b>								
<b>Oyu Tolgoi mine (a)</b>	33.5%							
<i>Mongolia</i>								
Ore Treated ('000 tonnes)		9,146	9,819	10,087	9,637	<b>10,615</b>	28,333	<b>30,339</b>
Average mill head grades:								
Copper (%)		0.66	0.61	0.51	0.51	<b>0.48</b>	0.67	<b>0.50</b>
Gold (g/t)		0.21	0.25	0.15	0.16	<b>0.18</b>	0.39	<b>0.16</b>
Silver (g/t)		1.99	1.50	1.30	1.38	<b>1.34</b>	1.95	<b>1.34</b>
Copper concentrates produced ('000 tonnes)		203.2	206.7	176.0	171.0	<b>170.0</b>	639.8	<b>517.0</b>
Average concentrate grade (% Cu)		22.9	22.0	21.6	21.8	<b>21.7</b>	24.4	<b>21.7</b>
Production of metals in concentrates:								
Copper in concentrates ('000 tonnes)		46.6	45.5	38.1	37.2	<b>36.9</b>	155.9	<b>112.1</b>
Gold in concentrates ('000 ounces)		37.4	49.4	24.8	23.9	<b>30.9</b>	250.6	<b>79.5</b>
Silver in concentrates ('000 ounces)		361	273	215	236	<b>239</b>	1,147	<b>689</b>
Sales of metals in concentrates:								
Copper in concentrates ('000 tonnes)		45.7	37.6	39.5	37.3	<b>36.9</b>	151.3	<b>113.6</b>
Gold in concentrates ('000 ounces)		38	39	32	23	<b>28</b>	307	<b>84</b>
Silver in concentrates ('000 ounces)		341	239	205	222	<b>229</b>	1,041	<b>656</b>

(a) Rio Tinto owns a 33.52% indirect interest in Oyu Tolgoi through its 50.79% interest in Turquoise Hill Resources.

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>DIAMONDS</b>								
<b>Argyle Diamonds</b>	100.0%							
<i>Western Australia</i>								
AK1 ore processed ('000 tonnes)		1,349	1,283	1,144	1,112	<b>1,255</b>	3,814	<b>3,511</b>
AK1 diamonds produced ('000 carats)		3,493	3,584	3,016	3,216	<b>4,757</b>	10,374	<b>10,988</b>
<b>Diavik Diamonds</b>	60.0%							
<i>Northwest Territories, Canada</i>								
Ore processed ('000 tonnes)		582	539	531	556	<b>578</b>	1,675	<b>1,664</b>
Diamonds recovered ('000 carats)		1,545	1,649	1,894	1,865	<b>1,961</b>	5,009	<b>5,719</b>

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

# Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>IRON ORE</b>								
<b>Rio Tinto Iron Ore</b>								
<i>Western Australia</i>								
<b>Pilbara Operations</b>								
Saleable iron ore production ('000 tonnes)								
Hamersley mines	(a)	52,302	54,848	48,664	48,674	52,921	151,054	150,259
Hamersley - Channar	60.0%	2,941	1,866	2,725	3,172	2,661	7,866	8,557
Hope Downs	50.0%	11,775	11,588	10,435	12,575	11,956	35,422	34,966
Robe River - Pannawonica (Mesas J and A)	53.0%	7,940	8,477	7,188	6,936	8,416	24,300	22,540
Robe River - West Angelas	53.0%	8,196	8,748	8,154	8,444	9,011	25,296	25,609
<b>Total production ('000 tonnes)</b>		<b>83,154</b>	<b>85,526</b>	<b>77,165</b>	<b>79,801</b>	<b>84,965</b>	<b>243,938</b>	<b>241,931</b>
Breakdown of total production:								
Pilbara Blend Lump		24,478	24,902	23,618	24,671	25,342	71,014	73,631
Pilbara Blend Fines		35,986	36,988	32,755	34,682	36,748	105,816	104,185
Robe Valley Lump		2,799	3,066	2,741	2,753	2,962	8,485	8,456
Robe Valley Fines		5,141	5,411	4,446	4,183	5,454	15,815	14,084
Yandicoogina Fines (HIY)		14,750	15,159	13,605	13,512	14,458	42,809	41,575
Breakdown of total sales:								
Pilbara Blend Lump		20,377	21,943	20,161	21,561	21,959	60,440	63,682
Pilbara Blend Fines		37,200	42,225	36,679	35,871	40,305	113,206	112,856
Robe Valley Lump		2,540	2,835	2,218	2,382	2,624	7,348	7,224
Robe Valley Fines		5,790	5,761	4,476	4,472	5,989	16,772	14,938
Yandicoogina Fines (HIY)		15,008	14,969	13,120	13,371	14,963	42,094	41,454
<b>Total sales ('000 tonnes) (b)</b>		<b>80,916</b>	<b>87,732</b>	<b>76,655</b>	<b>77,658</b>	<b>85,840</b>	<b>239,860</b>	<b>240,153</b>
<i>(a) Includes 100% of production from Paraburdoo, Mt Tom Price, Marandoo, Yandicoogina, Brockman, Nammuldi, Silvergrass and the Eastern Range mines. Whilst Rio Tinto owns 54% of the Eastern Range mine, under the terms of the joint venture agreement, Hamersley Iron manages the operation and is obliged to purchase all mine production from the joint venture and therefore all of the production is included in Rio Tinto's share of production.</i>								
<i>(b) Sales represent iron ore exported from Western Australian ports.</i>								
<b>Iron Ore Company of Canada</b>	58.7%							
<i>Newfoundland &amp; Labrador and Quebec in Canada</i>								
Saleable iron ore production:								
Concentrates ('000 tonnes)		2,272	1,915	1,889	2,212	2,469	6,442	6,569
Pellets ('000 tonnes)		2,710	2,756	2,504	2,356	2,932	7,042	7,792
<b>IOC Total production ('000 tonnes)</b>		<b>4,982</b>	<b>4,671</b>	<b>4,392</b>	<b>4,569</b>	<b>5,401</b>	<b>13,484</b>	<b>14,362</b>
Sales:								
Concentrates ('000 tonnes)		2,182	1,955	2,031	1,599	2,319	6,388	5,950
Pellets ('000 tonnes)		2,582	3,004	2,409	2,536	2,707	6,978	7,652
<b>IOC Total Sales ('000 tonnes)</b>		<b>4,764</b>	<b>4,960</b>	<b>4,441</b>	<b>4,135</b>	<b>5,027</b>	<b>13,367</b>	<b>13,602</b>
<b>Global Iron Ore Totals</b>								
Iron Ore Production ('000 tonnes)		88,136	90,196	81,558	84,370	90,365	257,422	256,293
Iron Ore Sales ('000 tonnes)		85,679	92,692	81,096	81,792	90,867	253,226	253,755

**Rio Tinto percentage interest shown above is at 30 September 2017. The data represent full production and sales on a 100% basis unless otherwise stated.**

## Rio Tinto operational data

	Rio Tinto interest	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	9 MTHS 2016	9 MTHS 2017
<b>SALT</b>								
<b>Dampier Salt</b>	68.4%							
<i>Western Australia</i>								
Salt production ('000 tonnes)		1,813	2,028	1,246	2,159	1,795	5,550	5,200
<b>TITANIUM DIOXIDE SLAG</b>								
<b>Rio Tinto Iron &amp; Titanium</b>	100.0%							
<i>Canada and South Africa</i>								
<i>(Rio Tinto share) (a)</i>								
Titanium dioxide slag ('000 tonnes)		267	300	332	316	327	748	975

(a) Quantities comprise 100% of Rio Tinto Fer et Titane and Rio Tinto's 74% interest in Richards Bay Minerals' production. Ilmenite mined in Madagascar is being processed in Canada.

<b>URANIUM</b>								
<b>Energy Resources of Australia Ltd</b>								
<b>Ranger mine (a)</b>	68.4%							
<i>Northern Territory, Australia</i>								
U <sub>3</sub> O <sub>8</sub> Production ('000 lbs)		1,468	1,328	1,316	991	1,407	3,853	3,713
<i>(a) ERA production data are drummed U3O8.</i>								
<b>Rössing Uranium Ltd (a)</b>	68.6%							
<i>Namibia</i>								
U3O8 Production ('000 lbs)		916	1,138	981	1,254	1,103	2,940	3,337

(a) Rössing production data are drummed U3O8.

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