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BHP OPERATIONAL REVIEW FOR THE YEAR ENDED 30 JUNE 2020

Note: All guidance is subject to further potential impacts from COVID-19 during the 2021 financial year.

- The commitment of our workforce, our disciplined controls and financial strength has enabled us to continue to safely operate through the COVID-19 pandemic and deliver a strong performance.
- Met full year production guidance for iron ore, metallurgical coal and our operated copper and energy coal assets. Petroleum production marginally below guidance with lower than expected gas demand due to the impact of COVID-19 in the June 2020 quarter. Antamina and Cerrejón production lower than guidance following the temporary suspension of operations due to COVID-19, with both operations now ramping back up.
- Record production was achieved at Western Australia Iron Ore (WAIO), Caval Ridge and Poitrel despite impacts from wet weather and COVID-19, while record coal was mined at Broadmeadow and record average concentrator throughput was delivered at Escondida.
- Group copper equivalent production for the 2020 financial year broadly in line with the prior year, with volumes expected to be slightly lower in the 2021 financial year due to impacts from a reduction in operational workforces in copper in response to COVID-19 and petroleum natural field decline.
- We expect to achieve full year unit cost guidance⁽¹⁾ at WAIO, Queensland Coal and New South Wales Energy Coal (NSWEC). Petroleum and Escondida unit costs are expected to be slightly better than guidance (based on 2020 financial year guidance exchange rates of AUD/USD 0.70 and USD/CLP 683).
- Our major projects under development in petroleum and iron ore are tracking to plan. As a result of measures put in place to reduce the spread of COVID-19 in Chile, first production from the Spence Growth Option is now expected between December 2020 and March 2021. We continue to assess the impacts of COVID-19 and the temporary reduction in construction activity at Jansen.
- As previously announced, we will provide updated capital and exploration expenditure guidance for the 2021 financial year with our full year results.
- An update on our short-term economic and commodities outlook is included on pages 4 to 5.

Production	FY20 (vs FY19)	Jun Q20 (vs Mar Q20)	Jun Q20 vs Mar Q20 commentary
Petroleum (MMboe)	109 (10%)	26 5%	Increased production at Bass Strait due to higher seasonal demand, partially offset by lower volumes at Atlantis due to planned maintenance and preparation work for Phase 3 project commissioning, and lower demand in Trinidad and Tobago.
Copper (kt)	1,724 2%	414 (3%)	Higher production at Escondida (record concentrator throughput) and Olympic Dam (improved operating stability) offset by lower production at Antamina due to temporary suspension in response to COVID-19.
Iron ore (Mt)	248 4%	67 11%	Higher volumes reflecting record quarter production at Mining Area C and Yandi, strong supply chain performance (increased car dumper availability and utilisation and reduced rail cycle times), coupled with wet weather impacts in the previous quarter.
Metallurgical coal (Mt)	41 (3%)	12 26%	Higher volumes at Queensland Coal including record production at Poitrel mine, following significant wet weather events impacting operations in the prior quarter.
Energy coal (Mt)	23 (16%)	6 (2%)	Higher production at NSWEC was offset by lower volumes at Cerrejón as a result of a temporary shutdown in response to COVID-19.
Nickel (kt)	80 (8%)	24 14%	Higher volumes following ramp back up to full capacity at the Kwinana refinery and Kalgoorlie smelter during the prior quarter.

Summary

BHP Chief Executive Officer, Mike Henry:

“BHP safely delivered a strong operational performance in the 2020 financial year, achieving record production in a number of our operations, and an improved cost base. This performance, achieved in the face of COVID-19 and other challenges, is a result of the outstanding effort of our people and the support of our communities, governments, customers and suppliers. We have sought to support those who rely on BHP through the pandemic with increased hiring, shorter payment terms for small, local and indigenous suppliers, support for contract workers and community funding for health and social services.

Our diversified portfolio and high quality assets, together with our strong balance sheet, make us resilient to the ongoing uncertainty in the markets for our commodities. We expect to continue to generate solid cash flow through the cycle and we remain confident in the outlook for demand for our products over the medium to long-term. We continue to focus on becoming even safer, delivering exceptional operational performance, maintaining disciplined capital allocation, creating and securing more options in future facing commodities and building social value. We have learned new ways of working, both internally and with others, through the COVID-19 pandemic. We will seek to embed these in a way that helps to reinforce these priorities.”

Operational performance

Production and guidance are summarised below.

Note: All guidance is subject to further potential impacts from COVID-19 during the 2021 financial year.

Production	FY20	Jun Q20	FY20 vs FY19	Jun Q20 vs Jun Q19	Jun Q20 vs Mar Q20	FY21 guidance	FY21e vs FY20
Petroleum (MMboe)	109	26	(10%)	(11%)	5%	95 – 102	(13%) – (6%)
Copper (kt)	1,724	414	2%	(7%)	(3%)	1,480 – 1,645	(14%) – (5%)
Escondida (kt)	1,185	294	4%	2%	1%	940 – 1,030	(21%) – (13%)
Pampa Norte (kt)	243	55	(2%)	(26%)	(15%)	240 – 270	(1%) – 11%
Olympic Dam (kt)	172	48	7%	5%	24%	180 – 205	5% – 19%
Antamina (kt)	125	18	(15%)	(52%)	(46%)	120 – 140	(4%) – 12%
Iron ore (Mt)	248	67	4%	7%	11%	244 – 253	(2%) – 2%
WAIO (100% basis) (Mt)	281	76	4%	6%	11%	276 – 286	(2%) – 2%
Metallurgical coal (Mt)	41	12	(3%)	(2%)	26%	40 – 44	(3%) – 7%
Queensland Coal (100% basis) (Mt)	73	21	(2%)	(1%)	29%	71 – 77	(2%) – 6%
Energy coal (Mt)	23	6	(16%)	(24%)	(2%)	22 – 24	(5%) – 4%
NSWEC (Mt)	16	5	(12%)	(10%)	28%	15 – 17	(7%) – 6%
Correjon (Mt)	7	1	(23%)	(62%)	(61%)	~7	Broadly unchanged
Nickel (kt)	80	24	(8%)	(17%)	14%	85 – 95	6% – 19%

Summary of disclosures

BHP expects its financial results for the second half of the 2020 financial year to reflect certain items as summarised in the table below. The table does not provide a comprehensive list of all items impacting the period. The financial statements are the subject of ongoing work that will not be finalised until the release of our full year financial results on 18 August 2020. Accordingly the information is subject to update.

Description	H2 FY20 impact US\$M ⁽ⁱ⁾	Classification ⁽ⁱⁱⁱ⁾
Unit costs for WAI0, Queensland Coal and NSWEC expected to be in line with full year guidance (at guidance exchange rates)	Refer footnote ⁽ⁱⁱⁱ⁾	Operating costs
Unit costs for Petroleum and Escondida tracking slightly better than full year guidance (at guidance exchange rates) due to lower price linked costs, cost efficiencies and deferred activity due to COVID-19 (Petroleum) and higher than expected by-product credits and lower than expected deferred stripping costs (Escondida)	Refer footnote ⁽ⁱⁱⁱ⁾	↓ Operating costs
Increase in closure and rehabilitation provision for closed mines (reported in group and unallocated)	600 – 700	↑ Operating costs
Exploration expense (including petroleum and minerals exploration programs)	286	↑ Exploration expense
The Group's net debt target range is US\$12 to US\$17 billion, with net debt expected to be towards the lower end of the range ^(iv)	-	Net debt
Settlement of derivative related to the funding of the interim dividend (Note: together with the payment of US\$2.9 billion reported in financing cash outflow, the combined payment of US\$3.3 billion represents the interim dividend determined on 18 February 2020 in the financial results for the half year ended 31 December 2019)	~320	↑ Operating cash outflow
Insurance proceeds received in relation to the Samarco dam failure (Note: income statement impact will be treated as an exceptional item)	~450	↑ Operating cash inflow
Dividends paid to non-controlling interests	~430	↑ Financing cash outflow
Impairment charge related to property, plant and equipment at Cerro Colorado, in addition to a valuation allowance recognised against Cerro Colorado's deferred tax assets (after tax)	450 – 500	↑ Exceptional item charge
Costs directly attributable to COVID-19 (after tax)	100 – 150	↑ Exceptional item charge
Financial impact on BHP Brasil of the Samarco dam failure	Refer footnote ⁽ⁱⁱⁱ⁾	Exceptional item

- (i) Numbers are not tax effected, unless otherwise noted.
- (ii) There will be a corresponding balance sheet, cash flow and/or income statement impact as relevant.
- (iii) Financial impact is the subject of ongoing work and is not yet finalised.
- (iv) Our Net Debt definition is currently under review in relation to vessel lease contracts that are priced with reference to a freight index. Such contracts are required to be re-measured to the prevailing index at each reporting date. Volatility in the index throughout FY2020 has created significant short-term fluctuation in these liabilities which, if included, does not align with how the Group uses net debt for decision making in relation to the capital allocation framework.

Major development projects

During the year, the BHP Board approved the Ruby oil and gas project in Trinidad and Tobago. At the end of the 2020 financial year, BHP had six major projects under development in petroleum, copper, iron ore and potash, with a combined budget of US\$11.4 billion over the life of the projects. Our major projects under development in petroleum and iron ore are tracking to plan.

The Spence Growth Option is continuing to progress, however, as a result of measures put in place to reduce the spread of COVID-19, first production is now expected between December 2020 and March 2021. As a result of the reduction of the on-site workforce, the commissioning of the desalination plant and capitalisation of the associated US\$600 million lease (approximate) will now occur in the first half of the 2021 financial year.

In June 2020, final shaft lining work for the Jansen project, which was reduced to focus on one shaft as part of our COVID-19 response plan to reduce our on-site interprovincial workforce, was resumed in both shafts. Timing for completion of the shafts continues to be under review. BHP continues to assess the impacts of COVID-19 and the temporary reduction in construction activity.

COVID-19 update

During the June 2020 quarter, our operated assets have continued with additional protocols in place to protect our workforce and communities from the spread of COVID-19, in line with guidelines from local and federal government bodies and expert health advice in the geographies where we operate.

In Australia, we have only had a small number of cases among our workforce since COVID-19 began, none with workplace exposure, and some assets are returning to more normal rosters. We remain vigilant and will continue with social distancing and hygiene practices and other protocols as appropriate to minimise the risk of transmission.

In South America, COVID-19 infection rates have seen governments continue with travel and lockdown restrictions. We continue to operate with a reduced number of people at mine sites and other operational facilities, with only business critical personnel on site. We have implemented a comprehensive plan for COVID-19 including various hygiene and health controls and a proactive testing regime for people before entering sites and boarding transportation.

In addition, we have implemented a company-wide COVID-19 app for employees and contractors so that in the event of a positive result, movement on site can be tracked to trace others who may have been in contact, and targeted isolation and sanitation can be undertaken. Medical and wellbeing support is in place for the workforce.

Our supply chains remain open and we have adequate supplies to operate and maintain critical equipment, with alternative suppliers identified for many of these.

Marketing update⁽²⁾

Short term economic outlook

The global economy has been dramatically impacted by COVID-19. Many major economies contracted heavily in the June 2020 quarter, including the United States (US), Europe and India. In contrast, China has moved from intensive viral suppression to economic recovery. Much of the developing world is still in the escalation phase of their COVID-19 outbreaks. The developed world has begun to re-emerge from wave one lockdowns, but early indications are that there is likely to be a period of uncertainty, with re-escalation of infection rates and re-implementation of COVID-19 response measures in some jurisdictions.

The pace and scope of recovery will vary across countries. Where “hibernation policies”⁽³⁾ have been enacted, we anticipate a smoother resumption of activity after the first wave. A considerable amount of monetary, liquidity and fiscal policy support has been mobilised in response to COVID-19. It is still uncertain how significant the multiplier effect will be of the monetary and fiscal stimulus policies measures that have been taken. A lower multiplier could result from depressed consumer and business confidence due to the impact of COVID-19 on both jobs and profitability. A higher multiplier could occur if the lagged impact of stimulus coincides with the release of pent-up demand as economies emerge from the lockdown, with the caveat that major second waves do not occur.

The International Monetary Fund’s (IMF) latest forecasts predict that the world economy will contract by 4.9 per cent in the 2020 calendar year and rebound by 5.4 per cent in the 2021 calendar year. While we plan against a range, our base case is similar across the two years. If this case eventuated, the world economy would be around 6 per cent smaller, on average, in the 2021 calendar year than it would otherwise have been if COVID-19 had not occurred.

Regionally, we note that Chinese domestic industrial activity has been improving, spurred on by supportive credit and fiscal policy. The major risk to maintaining that positive trajectory is the possibility of a widespread second wave of infections emerging. That is among the range of pathways that we consider and it is the key uncertainty in each of our regional outlooks. Elsewhere, indications are that the US, India, Japan and Europe will all experience a flatter recovery trajectory than China. Negative feedback loops to China from the downturn in the rest of the world are factored in to our range analysis.

Short term commodities outlook

Exchange traded commodity prices have recovered slightly from their March/April 2020 lows. Bulk commodity prices have diverged, with iron ore higher than in April 2020 while metallurgical coal prices are lower. Across the suite of commodities, a combination of economic supply-side curtailments and COVID-19 induced supply-side disruptions have served as a partial offset to the lower demand.

We maintain our view that steel production ex-China could contract by a double-digit percentage in the 2020 calendar year. We estimate that capacity utilisation ex-China fell to between 50 and 60 per cent across the June quarter. Steel makers from other regions, including Europe, the Americas, India and Japan have cut production. This reflects logistical difficulties created by COVID-19 (e.g. inter-state labour availability in India) as well as collapsing demand in downstream industries, such as automotive (e.g. Europe and Japan).

In China, blast furnace utilisation rates have increased from around 80 per cent earlier in February 2020 to above 90 per cent in June 2020. Daily rebar transactions were above normal seasonal levels for much of the June 2020 quarter, helping support a crude steel run-rate of 1,117 Mtpa in June 2020 (+4.5 per cent year-on-year). Year-to-date annualised production of 1,004 Mt is broadly consistent with our base case. Finished inventories have fallen as downstream activity has improved. While we note that only about 10 per cent of Chinese apparent steel demand⁽⁴⁾ is exported in finished products, the weakness in global demand will weigh on Chinese flat products manufacturers. However, better than expected outcomes for domestic machinery and auto production have narrowed the gap between long and flat product performance seen early in the year. Electric-arc furnace utilisation fell as low as 12 per cent in February 2020, but has now recovered to normal seasonal levels around 70 per cent. We continue to believe that if China can avoid a second wave of COVID-19, steel and pig iron production can both rise in the 2020 calendar year versus the prior year.

The Platts 62% Fe Iron Ore Fines price index has been resilient so far. This reflects solid Chinese pig iron production of 935 Mtpa in June 2020 (+4.1 per cent year-on-year), and the impact of constrained Brazilian exports. Meanwhile, preliminary shipping data suggest Australian exports hit a record of 1,072 Mtpa in June 2020. Weakness ex-China is less consequential for price formation in iron ore than in other commodities.

The Platts Premium Low-Volatile Metallurgical Coal price index has been under downward pressure through the June 2020 quarter. Negative demand impacts from COVID-19 lockdowns in the major importing regions of Europe, India and developed Asia have been the major influence on the market. Chinese demand, on the other hand has been firm. However, China's coal import policy remains a key uncertainty. As demand disruption ex-China accelerated early in the June quarter, prices traded below the lows seen in the second half of the 2019 calendar year. They have since stabilised at these levels. The geographic diversification of metallurgical coal demand is a long term advantage but an impediment under today's unique circumstances. Developments in both supply and demand imply that lower quality products may face headwinds for an extended period. Premium coking coals exhibit attractive medium-term fundamentals.

The energy coal market is in a difficult state. The GCNewc 6000kcal price recently fell below the levels reached during the 2015/16 downturn. Wood Mackenzie has estimated that at late June 2020 spot prices around two-thirds of seaborne supply was likely to be earning negative margins. Short term increases in producer currencies and diesel prices have amplified cost challenges. An uplift in power demand across developed Asia as re-starts progress could help to stabilise the market. China's policy in respect of energy coal imports remains a key uncertainty.

Copper prices fell sharply in March 2020 amidst depressed macro investor sentiment. They have since rebounded, first on improving sentiment towards pro-growth assets, and more recently on news of supply challenges in South America due to COVID-19. In terms of demand fundamentals, our view is that the decline in ex-China copper demand will be less severe than for steel. Conversely, in China, copper demand could be marginally weaker than steel in the 2020 calendar year, based partly on copper's greater exposure to indirect exports from China (approximately 20 per cent versus approximately 10 per cent for steel). Copper also benefits less than steel from transport and non-power utilities infrastructure, which are benefitting from strong policy support. On the supply side, Peru and Chile have experienced difficulty in containing COVID-19, with flow-on impacts to copper operations and the broader supply chain. This has led to a material tightening of the copper concentrate balance, with treatment and refining charges moving lower in response. Scrap availability has also been constrained.

After crashing in March 2020, crude oil prices exhibited considerable volatility in April 2020. However, conditions improved in May and June 2020, as the early impact of global supply cuts, China's demand recovery and activity re-starts in the US and Europe took some pressure off global storage. Large and small producers alike have announced sharp cuts in capital spending in response to the price decline. In North America, rigs targeting oil have declined by more than 70 per cent, to a level last seen before the shale boom. We believe that the most significant risks to the physical market have passed. However, a return to pre-COVID-19 demand levels is not expected to occur before the end of the 2021 calendar year.

Average realised prices

The average realised prices achieved for our major commodities are summarised below.

Average realised prices ⁽ⁱ⁾	Jun H20	Dec H19	FY20	FY19	FY20 vs FY19	Jun H20 vs Jun H19	Jun H20 vs Dec H19
Oil (crude and condensate) (US\$/bbl)	37.51	60.64	49.53	66.59	(26%)	(41%)	(38%)
Natural gas (US\$/Mscf) ⁽ⁱⁱ⁾	3.76	4.26	4.04	4.55	(11%)	(15%)	(12%)
LNG (US\$/Mscf)	6.87	7.62	7.26	9.43	(23%)	(19%)	(10%)
Copper (US\$/lb)	2.39	2.60	2.50	2.62	(5%)	(11%)	(8%)
Iron ore (US\$/wmt, FOB)	76.67	78.30	77.36	66.68	16%	(1%)	(2%)
Metallurgical coal (US\$/t)	121.25	140.94	130.97	179.67	(27%)	(32%)	(14%)
Hard coking coal (US\$/t) ⁽ⁱⁱⁱ⁾	133.51	154.01	143.65	199.61	(28%)	(34%)	(13%)
Weak coking coal (US\$/t) ⁽ⁱⁱⁱ⁾	84.43	101.06	92.59	130.18	(29%)	(33%)	(16%)
Thermal coal (US\$/t) ^(iv)	55.91	58.55	57.10	77.90	(27%)	(23%)	(5%)
Nickel metal (US\$/t)	12,459	15,715	13,860	12,462	11%	0%	(21%)

(i) Based on provisional, unaudited estimates. Prices exclude sales from equity accounted investments, third party product and internal sales, and represent the weighted average of various sales terms (for example: FOB, CIF and CFR), unless otherwise noted. Includes the impact of provisional pricing and finalisation adjustments.

(ii) Includes internal sales.

(iii) Hard coking coal (HCC) refers generally to those metallurgical coals with a Coke Strength after Reaction (CSR) of 35 and above, which includes coals across the spectrum from Premium Coking to Semi Hard Coking coals, while weak coking coal (WCC) refers generally to those metallurgical coals with a CSR below 35.

(iv) Export sales only; excludes Cerrejón. Includes thermal coal sales from metallurgical coal mines.

The large majority of oil sales were linked to West Texas intermediate (WTI) or Brent based indices, with differentials applied for quality, locational and transportation costs. The large majority of iron ore shipments were linked to index pricing for the month of shipment, with price differentials predominantly a reflection of market fundamentals and product quality. Iron ore sales were based on an average moisture rate of 7.5 per cent. The large majority of metallurgical coal and energy coal exports were linked to index pricing for the month of shipment or sold on the spot market at fixed or index-linked prices, with price differentials reflecting product quality. The majority of copper cathodes sales were linked to index price for quotation periods one month after month of shipment, and three to four months after month of shipment for copper concentrates sales with price differentials applied for location and treatment costs.

At 30 June 2020, the Group had 304 kt of outstanding copper sales that were revalued at a weighted average price of US\$2.73 per pound. The final price of these sales will be determined in the 2021 financial year. In addition, 322 kt of copper sales from the 2019 financial year were subject to a finalisation adjustment in the current period. The provisional pricing and finalisation adjustments will increase Underlying EBITDA⁽⁵⁾ by US\$125 million in the 2020 financial year and is included in the average realised copper price in the above table.

Corporate update

In December 2019, BHP agreed to fund a total of US\$793 million in financial support for the Renova Foundation and Samarco. This comprises US\$581 million to fund the Renova Foundation until 31 December 2020 which will be offset against the Group's provision for the Samarco dam failure, and a short-term facility of up to US\$212 million to be made available to Samarco until 31 December 2020.

We will provide an update to the ongoing potential financial impacts on BHP Brasil of the Samarco dam failure with our full year Results Announcement on 18 August 2020. Any financial impacts will continue to be treated as an exceptional item.

Petroleum

Production

	FY20	Jun Q20	FY20 vs FY19	Jun Q20 vs Jun Q19	Jun Q20 vs Mar Q20
Crude oil, condensate and natural gas liquids (MMboe)	49	11	(11%)	(15%)	(2%)
Natural gas (bcf)	360	90	(9%)	(8%)	11%
Total petroleum production (MMboe)	109	26	(10%)	(11%)	5%

Petroleum – Total petroleum production decreased by 10 per cent to 109 MMboe, with volumes marginally below guidance as a result of weaker than expected gas demand due to the impact of COVID-19 and a decrease in tax barrels at Trinidad and Tobago due to low commodity prices in the June 2020 quarter. Volumes are expected to decrease to between 95 and 102 MMboe in the 2021 financial year, reflecting expected lower gas demand in Eastern Australia and Trinidad and Tobago, the previously announced delay of several small and medium sized projects with short lifecycles and natural field decline across the portfolio.

Crude oil, condensate and natural gas liquids production decreased by 11 per cent to 49 MMboe due to the impacts of Tropical Storm Barry in the Gulf of Mexico, Tropical Cyclone Damien at our North West Shelf operations, maintenance at Atlantis and natural field decline across the portfolio. Weaker market conditions, including impacts from COVID-19, also contributed to lower volumes in the June 2020 quarter. This decline was partially offset by higher uptime at Pyrenees following the 70 day dry dock maintenance program during the prior year.

Natural gas production decreased by nine per cent to 360 bcf, reflecting a decrease in both production and tax barrels (in accordance with the terms of our Production Sharing Contract) due to weaker market conditions in Trinidad and Tobago, impacts of maintenance and Tropical Cyclone Damien at North West Shelf and natural field decline across the portfolio.

Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
Atlantis Phase 3 (US Gulf of Mexico) 44% (non-operator)	696	CY20	New subsea production system that will tie back to the existing Atlantis facility, with capacity to produce up to 38,000 gross barrels of oil equivalent per day.	On schedule and budget. The overall project is 79% complete.
Ruby (Trinidad & Tobago) 68.46% (operator)	283	CY21	Five production wells tied back into existing operated processing facilities, with capacity to produce up to 16,000 gross barrels of oil per day and 80 million gross standard cubic feet of natural gas per day.	On schedule and budget. The overall project is 28% complete.
Mad Dog Phase 2 (US Gulf of Mexico) 23.9% (non-operator)	2,154	CY22	New floating production facility with the capacity to produce up to 140,000 gross barrels of crude oil per day.	On schedule and budget. The overall project is 77% complete.

The Bass Strait West Barracouta project is on schedule and budget, and is still expected to achieve first production in the 2021 calendar year, despite delays in component delivery and equipment fabrication due to COVID-19 restrictions.

Additional measures have been put in place across each of our projects to protect workforce health and safety as a result of COVID-19. All projects currently in execution remain on track and we do not expect an impact on the timing of first production.

As previously announced, in light of the recent significant disruption to oil and gas markets and heightened risk of interruption to field activity, we have reviewed our capital, operating, exploration and appraisal expenditure programs. We will provide updated capital and exploration expenditure guidance for the 2021 financial year with our full year Results Announcement to be released on 18 August 2020.

Petroleum exploration

No exploration and appraisal wells were drilled during the June 2020 quarter.

The Deepwater Invictus rig is anticipated to mobilise to Trinidad and Tobago in the September 2020 quarter to drill one exploration well, Broadside, in our Southern licences as part of Phase 5 of our deepwater drilling campaign, subject to any further COVID-19 constraints on mobilisation.

In the US Gulf of Mexico, following lease sale 254, blocks GC80 and GC123 were awarded in July 2020 in the central Gulf of Mexico, building on our Green Canyon position. Block GB721 was also awarded in June 2020, expanding our western Gulf of Mexico position. As previously announced, we are the apparent high bidder on Blocks AC36, AC80, AC81 in the western Gulf of Mexico. We are completing prospect maturation of the Green Canyon blocks we acquired in the recent lease sales, with plans to drill an exploration well during the 2021 calendar year.

In the Gippsland Basin, we participated in a multi-client 3D seismic survey (non-operated)⁽⁶⁾ which is expected to be completed in the September 2020 quarter.

Petroleum exploration expenditure for the 2020 financial year was US\$564 million, of which US\$394 million was expensed.

Copper

Production

	FY20	Jun Q20	FY20 vs FY19	Jun Q20 vs Jun Q19	Jun Q20 vs Mar Q20
Copper (kt)	1,724	414	2%	(7%)	(3%)
Zinc (t)	88,462	13,736	(10%)	(39%)	(57%)
Uranium (t)	3,678	1,016	3%	4%	31%

Copper – Total copper production increased by two per cent to 1,724 kt. Production of between 1,480 and 1,645 kt is expected in the 2021 financial year.

For the majority of the June 2020 quarter, our Chilean assets operated with a reduction in their operational workforces of approximately 35 per cent to incorporate measures in response to COVID-19. We have implemented a comprehensive plan for COVID-19 including various hygiene and health controls and a proactive testing regime for people before entering sites and boarding transportation. The operating environment across our Chilean assets is likely to remain challenging, with reductions in our workforce expected to remain at a similar level during the September 2020 quarter.

Escondida copper production increased by four per cent to 1,185 kt, with record June 2020 quarter concentrator throughput of 382 ktpd lifting annual concentrator throughput to a record 371 ktpd. This offsets the impact of a three per cent decline in copper grade, stoppages associated with the social unrest in Chile (7 kt impact) and a reduced workforce due to COVID-19 preventative measures. The new records were achieved through continued improvements in operational and maintenance practices leading to increased availability and utilisation at the site's three concentrators. Production of between 940 and 1,030 kt is expected for the 2021 financial year, with a decline in copper grade of concentrator feed approximately four per cent. Lower volumes reflect the need to continue to balance mine development and production requirements, with processing capacity at concentrators and leaching plants, as a result of a reduced operational workforce due to COVID-19. It is expected that production levels are likely to be impacted in the 2022 financial year as a result of reduced operational workforce and material movement in the 2021 financial year. Guidance of an annual average of 1,200 kt of copper production over the next five years remains unchanged.

Pampa Norte copper production decreased by two per cent to 243 kt, with strong operating performance offset by grade decline of approximately 14 per cent. Production for the 2021 financial year is expected to be between 240 and 270 kt, reflecting the reduced operational workforce due to COVID-19, the start-up of the Spence Growth Option project and expected grade decline of approximately seven per cent. On 1 July 2020, Cerro Colorado announced it had started a four-month process to adjust its mine plan to reduce throughput and costs to achieve improved cash returns and ensure viable mining operations for the remaining period of its current environmental licence, which expires at the end of the 2023 calendar year.

Olympic Dam copper production increased by seven per cent to 172 kt supported by solid underground mine performance with strong development metres achieved, record grade and the prior period acid plant outage. This was partially offset by the impact of planned preparatory work undertaken in the September 2019 quarter related to the replacement of the refinery crane and unplanned downtime at the smelter during the March 2020 quarter. The physical replacement and commissioning of the refinery crane is expected to be completed in the March 2021 quarter. Underground development into the Southern Mine Area progressed to plan over the year, and provided access to higher copper grade ore. Following strong mine development over a number of years, we plan to draw down surplus run-of-mine stockpiles. Production for the 2021 financial year is expected to increase to between 180 and 205 kt. Production for the 2022 financial year is expected to be lower as a result of the major smelter maintenance campaign planned for the first half of the year.

Antamina copper production decreased by 15 per cent to 125 kt and zinc production decreased by 10 per cent to 88 kt, reflecting lower copper head grades and the impacts of operating with a reduced workforce and a six-week shutdown during the June 2020 quarter in response to COVID-19. Antamina is ramping back up and will continue to operate with a reduced workforce, which will impact material mined in the 2021 financial year. Copper production of between 120 and 140 kt, and zinc production of between 140 and 160 kt is expected for the 2021 financial year.

Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
Spence Growth Option (Chile) 100%	2,460	FY21	New 95 ktpd concentrator is expected to increase payable copper in concentrate production by ~185 ktpa in the first 10 years of operation and extend the mining operations by more than 50 years.	On budget. First production is expected between December 2020 and March 2021. The overall project is 93% complete.

The Spence Growth Option schedule is continuing to progress, however, as a result of measures put in place to reduce the spread of COVID-19, first production is now expected between December 2020 and March 2021. The commissioning of the desalination plant and capitalisation of the associated US\$600 million lease (approximate) will now occur in the first half of the 2021 financial year.

Iron Ore

Production

	FY20	Jun Q20	FY20 vs FY19	Jun Q20 vs Jun Q19	Jun Q20 vs Mar Q20
Iron ore production (kt)	248,159	66,729	4%	7%	11%

Iron ore – Total iron ore production increased by four per cent to a record 248 Mt (281 Mt on a 100 per cent basis). Production of between 244 and 253 Mt (276 and 286 Mt on a 100 per cent basis) is expected in the 2021 financial year. We continue with our program to improve productivity and provide a stable base for our tightly coupled supply chain and this includes a major maintenance campaign on car dumper three planned for the September 2020 quarter, with a corresponding impact expected on production.

WAIO achieved record production, with higher volumes reflecting record production at Jimblebar and Yandi. Weather impacts from Tropical Cyclone Blake and Tropical Cyclone Damien, were offset by strong performance across the supply chain, with significant improvements in productivity and reliability following a series of targeted maintenance programs over the past four years. This enabled WAIO to produce at a record annualised run rate above 300 Mt (100 per cent basis) during the June 2020 quarter.

Consistent with our revised mine plan, the typical specification of Jimblebar fines improved to above 60 per cent Fe grade in the June 2020 quarter.

WAIO continues to focus on operating safely and despite the de-escalation of COVID-19 restrictions in Western Australia, a series of preventative measures remain in place to minimise the spread of COVID-19. WAIO has returned to normal shift rosters and has reopened the Perth office. To meet border controls introduced by the Western Australian Government, over 900 employees and contractors in business critical roles temporarily relocated to Western Australia, including the majority of specialist roles who are based interstate, such as train drivers and train load out operators. These employees remain in Western Australia.

Mining and processing operations at Samarco remain suspended following the failure of the Fundão tailings dam and Santarém water dam on 5 November 2015. Operation readiness activities for Samarco's restart have been slowed as a result of a reduced workforce, as part of the COVID-19 response. Restart can occur when the filtration system is complete and Samarco has met all necessary safety requirements, and will be subject to final approval by Samarco's shareholders.

Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
South Flank (Australia) 85%	3,061	Mid-CY21	Sustaining iron ore mine to replace production from the 80 Mtpa (100 per cent basis) Yandi mine.	On schedule and budget. The overall project is 76% complete.

The South Flank project is tracking well and remains on schedule for first production in the middle of the 2021 calendar year. Consistent with our other assets, measures designed to conduct safe operations in compliance with strict health and travel guidelines remain in place at South Flank to help reduce the spread of COVID-19.

Coal

Production

	FY20	Jun Q20	FY20 vs FY19	Jun Q20 vs Jun Q19	Jun Q20 vs Mar Q20
Metallurgical coal (kt)	41,118	11,614	(3%)	(2%)	26%
Energy coal (kt)	23,167	5,654	(16%)	(24%)	(2%)

Metallurgical coal – Metallurgical coal production was down three per cent to 41 Mt (73 Mt on a 100 per cent basis) as a result of significant wet weather events in the prior quarter and geotechnical constraints at South Walker Creek. Production is expected to be between 40 and 44 Mt (71 and 77 Mt on a 100 per cent basis) in the 2021 financial year, a similar level to the prior year as it reflects an expected deterioration in market outlook due to the impact of COVID-19. With Blackwater returning to full capacity towards the end of the September 2020 quarter after flooding in the March 2020 quarter, volumes will be weighted to the second half of the financial year.

At Queensland Coal, strong underlying operational performance, including record underground coal mined at Broadmeadow and record annual production at Caval Ridge and Poitrel, was offset by planned major wash plant shutdowns in the first half of the year and significantly higher rainfall during January and February 2020 compared with historical averages. Blackwater, our largest mine, was the most severely impacted, with mining operations stabilised during the June 2020 quarter and a return to full capacity expected towards the end of the September 2020 quarter.

Energy coal – Energy coal production decreased by 16 per cent to 23 Mt. Production is expected to be between 22 and 24 Mt in the 2021 financial year. Further potential impacts from COVID-19, including weak demand, represent possible downside risk to the 2021 financial year guidance.

NSWEC production decreased by 12 per cent to 16 Mt as a result of the change in product strategy to focus on higher quality products and unfavourable weather impacts from December 2019 to February 2020. This was partially offset by a strong performance in the June 2020 quarter driven by record truck utilisation. Production is expected to be between 15 and 17 Mt in the 2021 financial year.

Cerrejón production decreased by 23 per cent to 7 Mt due to a temporary shutdown during the June 2020 quarter in response to COVID-19, as well as a focus on higher quality products, in line with the mine plan. The temporary shutdown lasted for approximately six weeks and allowed for completion of COVID-19 control measures to meet the Colombian Government's regulations. Production is expected to be approximately 7 Mt in the 2021 financial year.

Other

Nickel production

	FY20	Jun Q20	FY20 vs FY19	Jun Q20 vs Jun Q19	Jun Q20 vs Mar Q20
Nickel (kt)	80.1	23.9	(8%)	(17%)	14%

Nickel – Nickel West production decreased by eight per cent to 80 kt due to the major quadrennial maintenance shutdowns at the Kwinana refinery and the Kalgoorlie smelter, as well as planned routine maintenance at the concentrators, in the December 2019 quarter. Operations ramped back up to full capacity during the March 2020 quarter and ran at full capacity during the June 2020 quarter. With the major planned maintenance and the transition to new mines now complete, total nickel production is expected to increase to between 85 and 95 kt in the 2021 financial year.

Operations Services – In Australia, we have created 2,800 permanent jobs, with Operations Services deployed at 20 locations across WAIO, Queensland Coal and NSWEC and successfully accelerating safety, productivity and efficiency outcomes. In May 2020, Operations Services launched a new national training program to be delivered through the BHP FutureFit Academy which has been developed to provide a customised training pathway, utilising nationally recognised curricula for trade apprenticeships and maintenance traineeships. The first two FutureFit Academy campuses opened in Mackay in Queensland and Perth in Western Australia, with students to graduate and be deployed to an Operations Services Maintenance team from the 2021 calendar year.

Potash project

Project and ownership	Investment US\$M	Scope	Progress
Jansen Potash (Canada) 100%	2,700	Investment to finish the excavation and lining of the production and service shafts, and to continue the installation of essential surface infrastructure and utilities.	The project is 86% complete.

In June 2020, final shaft lining work, which was reduced to focus on one shaft as part of our COVID-19 response, was resumed in both shafts. Timing for completion of the shafts continues to be under review. BHP continues to assess the impacts of COVID-19 and the temporary reduction in construction activity.

Minerals exploration

Minerals exploration expenditure for the 2020 financial year was US\$176 million, of which US\$123 million was expensed. Greenfield minerals exploration is predominantly focused on advancing copper targets within Chile, Ecuador, Mexico, Peru, Canada, South Australia and the south-west United States.

At Oak Dam in South Australia, the third phase of the drilling program was completed in the June 2020 quarter, bringing the total area drilled to approximately 21,500 m and the results are currently being analysed. This follows encouraging results from the previous drilling phases, which confirmed high-grade mineralised intercepts of copper, with associated gold, uranium and silver.

In June 2020, BHP agreed to acquire the Honeymoon Well development project and a 50 per cent interest in the Albion Downs North and Jericho exploration joint ventures from MPI Nickel Pty Ltd, a wholly owned subsidiary of Norilsk Nickel Australian Holdings BV. BHP is currently a 50 per cent shareholder in the Albion Downs North and Jericho Joint Ventures. The combined tenement package is located in the northern Goldfields region of Western Australia, approximately 50 km from our Mt Keith mine and 100 km from the Leinster concentrator. Completion of the agreement is subject to a number of conditions including government and third party approvals.

Variance analysis relates to the relative performance of BHP and/or its operations during the 2020 financial year compared with the 2019 financial year, unless otherwise noted. Production volumes, sales volumes and capital and exploration expenditure from subsidiaries are reported on a 100 per cent basis; production and sales volumes from equity accounted investments and other operations are reported on a proportionate consolidation basis. Numbers presented may not add up precisely to the totals provided due to rounding. Copper equivalent production based on 2020 financial year average realised prices.

The following footnotes apply to this Operational Review:

- (1) 2020 financial year unit cost guidance: Petroleum US\$10.50-11.50/boe, Escondida US\$1.20-1.35/lb, WAIO US\$13-14/t, Queensland Coal US\$67-74/t and NSWEC US\$55-61/t; based on exchange rates of AUD/USD 0.70 and USD/CLP 683.
- (2) All data presented in this report is the latest available as of 16 July 2020.
- (3) The phrase "economic hibernation" was coined by ANU Professor's Tourky and Pitchford. It describes the comprehensive support that the public balance sheet can provide to mitigate the no-fault unemployment, default and insolvency that the effort to suppress a pandemic can bring.
- (4) Incremental to apparent demand is around 45 Mt in direct net exports of steel.
- (5) Underlying EBITDA is used to help assess current operational profitability excluding the impacts of sunk costs (i.e. depreciation from initial investment). Underlying EBITDA is earnings before net finance costs, depreciation, amortisation and impairments, taxation expense, discontinued operations and exceptional items. Underlying EBITDA includes BHP's share of profit/(loss) from investments accounted for using the equity method including net finance costs, depreciation, amortisation and impairments and taxation expense/(benefit).
- (6) Non-operated CGG, EP:4619.

The following abbreviations may have been used throughout this report: barrels (bbl); billion cubic feet (bcf); cost and freight (CFR); cost, insurance and freight (CIF); dry metric tonne unit (dmtu); free on board (FOB); grams per tonne (g/t); kilograms per tonne (kg/t); kilometre (km); metre (m); million barrels of oil equivalent (MMboe); million barrels of oil per day (MMbpd); million cubic feet per day (MMcf/d); million tonnes (Mt); million tonnes per annum (Mtpa); ounces (oz); pounds (lb); thousand barrels of oil equivalent (Mboe); thousand barrels of oil equivalent per day (Mboe/d); thousand ounces (koz); thousand standard cubic feet (Mscf); thousand tonnes (kt); thousand tonnes per annum (ktpa); thousand tonnes per day (ktpd); tonnes (t); and wet metric tonnes (wmt).

In this release, the terms 'BHP', 'Group', 'BHP Group', 'we', 'us', 'our' and 'ourselves' are used to refer to BHP Group Limited, BHP Group plc and, except where the context otherwise requires, their respective subsidiaries as defined in note 28 'Subsidiaries' in section 5.1 of BHP's 30 June 2019 Annual Report and Form 20-F, unless stated otherwise. Notwithstanding that this release may include production, financial and other information from non-operated assets, non-operated assets are not included in the BHP Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless stated otherwise. Our non-operated assets include Antamina, Cerrejón, Samarco, Atlantis, Mad Dog, Bass Strait and North West Shelf. BHP Group cautions against undue reliance on any forward-looking statement or guidance, particularly in light of the current economic climate and significant volatility, uncertainty and disruption, including that caused by the COVID-19 outbreak. These forward looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control.

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Production summary

		Quarter ended					Year to date		
BHP interest		Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Jun 2020	Jun 2019	
Petroleum ⁽¹⁾									
Petroleum									
Production									
Crude oil, condensate and NGL (Mboe)		13,366	12,507	13,412	11,589	11,355	48,863	55,186	
Natural gas (bcf)		97.8	100.4	88.7	80.7	89.8	359.6	396.9	
Total (Mboe)		29,666	29,240	28,195	25,039	26,322	108,796	121,336	
Copper ⁽²⁾									
Copper									
Payable metal in concentrate (kt)									
Escondida ⁽³⁾		57.5%	224.1	237.0	240.3	220.1	228.5	925.9	882.1
Antamina		33.8%	37.4	37.6	36.2	32.9	17.8	124.5	147.2
Total			261.5	274.6	276.5	253.0	246.3	1,050.4	1,029.3
Cathode (kt)									
Escondida ⁽³⁾		57.5%	63.5	55.9	68.4	69.6	65.5	259.4	253.2
Pampa Norte ⁽⁴⁾		100%	74.1	63.9	60.0	64.3	54.5	242.7	246.5
Olympic Dam		100%	45.2	35.1	50.5	38.4	47.6	171.6	160.3
Total			182.8	154.9	178.9	172.3	167.6	673.7	660.0
Total copper (kt)			444.3	429.5	455.4	425.3	413.9	1,724.1	1,689.3
Lead									
Payable metal in concentrate (t)									
Antamina		33.8%	770	405	383	621	262	1,671	2,389
Total			770	405	383	621	262	1,671	2,389
Zinc									
Payable metal in concentrate (t)									
Antamina		33.8%	22,469	20,454	22,483	31,789	13,736	88,462	98,112
Total			22,469	20,454	22,483	31,789	13,736	88,462	98,112
Gold									
Payable metal in concentrate (troy oz)									
Escondida ⁽³⁾		57.5%	74,704	48,801	49,209	35,990	43,422	177,422	286,006
Olympic Dam (refined gold)		100%	37,032	43,205	35,382	33,235	34,150	145,972	106,968
Total			111,736	92,006	84,591	69,225	77,572	323,394	392,974
Silver									
Payable metal in concentrate (troy koz)									
Escondida ⁽³⁾		57.5%	2,074	1,626	1,798	1,390	1,599	6,413	8,830
Antamina		33.8%	1,209	1,101	1,173	1,216	626	4,116	4,758
Olympic Dam (refined silver)		100%	268	245	203	241	295	984	923
Total			3,551	2,972	3,174	2,847	2,520	11,513	14,511
Uranium									
Payable metal in concentrate (t)									
Olympic Dam		100%	975	937	949	776	1,016	3,678	3,565
Total			975	937	949	776	1,016	3,678	3,565
Molybdenum									
Payable metal in concentrate (t)									
Antamina		33.8%	178	405	527	491	243	1,666	1,141
Total			178	405	527	491	243	1,666	1,141

Production summary

		Quarter ended					Year to date	
BHP interest		Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Jun 2020	Jun 2019
Iron Ore								
Iron Ore								
Production (kt) ⁽⁵⁾								
Newman	85%	17,058	16,316	15,766	16,449	17,110	65,641	66,622
Area C Joint Venture	85%	13,837	12,620	12,727	12,179	13,973	51,499	47,440
Yandi Joint Venture	85%	17,486	17,827	14,857	17,491	19,087	69,262	65,197
Jimblebar ⁽⁶⁾	85%	14,209	14,239	17,045	13,911	16,559	61,754	58,546
Wheelarra	85%	5	3	-	-	-	3	159
Samarco	50%	-	-	-	-	-	-	-
Total		62,595	61,005	60,395	60,030	66,729	248,159	237,964
Coal								
Metallurgical coal								
Production (kt) ⁽⁷⁾								
BMA	50%	9,090	6,905	8,723	6,869	9,078	31,575	32,136
BHP Mitsui Coal ⁽⁸⁾	80%	2,804	2,453	2,201	2,353	2,536	9,543	10,265
Total		11,894	9,358	10,924	9,222	11,614	41,118	42,401
Energy coal								
Production (kt)								
Australia	100%	5,412	3,592	3,763	3,810	4,887	16,052	18,257
Colombia	33.3%	2,017	2,055	2,315	1,978	767	7,115	9,230
Total		7,429	5,647	6,078	5,788	5,654	23,167	27,487
Other								
Nickel								
Saleable production (kt)								
Nickel West ⁽⁹⁾	100%	28.7	21.6	13.7	20.9	23.9	80.1	87.4
Total		28.7	21.6	13.7	20.9	23.9	80.1	87.4
Cobalt								
Saleable production (t)								
Nickel West	100%	302	211	120	132	312	775	899
Total		302	211	120	132	312	775	899

- (1) LPG and ethane are reported as natural gas liquids (NGL). Product-specific conversions are made and NGL is reported in barrels of oil equivalent (boe). Total boe conversions are based on 6 bcf of natural gas equals 1,000 Mboe.
- (2) Metal production is reported on the basis of payable metal.
- (3) Shown on a 100% basis. BHP interest in saleable production is 57.5%.
- (4) Includes Cerro Colorado and Spence.
- (5) Iron ore production is reported on a wet tonnes basis.
- (6) Shown on a 100% basis. BHP interest in saleable production is 85%.
- (7) Metallurgical coal production is reported on the basis of saleable product. Production figures include some thermal coal.
- (8) Shown on a 100% basis. BHP interest in saleable production is 80%.
- (9) Production restated to include other nickel by-products.

Throughout this report figures in italics indicate that this figure has been adjusted since it was previously reported.

Production and sales report

		Quarter ended					Year to date	
		Jun	Sep	Dec	Mar	Jun	Jun	Jun
		2019	2019	2019	2020	2020	2020	2019
Petroleum ⁽¹⁾								
Bass Strait								
Crude oil and condensate	(Mboe)	1,246	1,409	1,427	926	1,231	4,993	5,193
NGL	(Mboe)	1,299	1,810	1,405	958	1,493	5,666	5,435
Natural gas	(bcf)	30.6	36.6	27.8	18.4	28.1	110.9	111.9
Total petroleum products	(Mboe)	7,645	9,319	7,465	4,957	7,408	29,149	29,278
North West Shelf								
Crude oil and condensate	(Mboe)	1,357	1,337	1,376	1,266	1,260	5,239	5,822
NGL	(Mboe)	189	202	200	191	203	796	830
Natural gas	(bcf)	34.8	32.1	32.9	35.0	35.2	135.2	145.5
Total petroleum products	(Mboe)	7,346	6,889	7,059	7,287	7,334	28,569	30,902
Pyrenees								
Crude oil and condensate	(Mboe)	1,001	979	934	917	971	3,801	3,324
Total petroleum products	(Mboe)	1,001	979	934	917	971	3,801	3,324
Other Australia ⁽²⁾								
Crude oil and condensate	(Mboe)	7	8	1	1	1	11	28
Natural gas	(bcf)	12.2	12.0	11.4	11.2	11.9	46.5	52.9
Total petroleum products	(Mboe)	2,040	2,008	1,901	1,874	1,987	7,770	8,845
Atlantis ⁽³⁾								
Crude oil and condensate	(Mboe)	3,607	2,759	3,525	2,769	2,223	11,276	14,487
NGL	(Mboe)	248	192	245	178	54	669	1,006
Natural gas	(bcf)	2.2	1.4	1.8	1.3	1.1	5.6	7.6
Total petroleum products	(Mboe)	4,222	3,184	4,070	3,170	2,456	12,880	16,760
Mad Dog ⁽³⁾								
Crude oil and condensate	(Mboe)	1,246	1,096	1,202	1,272	1,297	4,867	4,932
NGL	(Mboe)	23	49	52	55	33	189	196
Natural gas	(bcf)	0.2	0.2	0.2	0.2	0.3	0.9	0.8
Total petroleum products	(Mboe)	1,302	1,178	1,287	1,355	1,374	5,195	5,261
Shenzi ⁽³⁾								
Crude oil and condensate	(Mboe)	1,725	1,345	1,671	1,645	1,584	6,245	7,646
NGL	(Mboe)	(2)	70	94	94	40	298	353
Natural gas	(bcf)	0.4	0.2	0.3	0.3	0.4	1.2	1.6
Total petroleum products	(Mboe)	1,790	1,448	1,815	1,791	1,686	6,740	8,266
Trinidad/Tobago								
Crude oil and condensate	(Mboe)	235	175	166	97	72	510	1,166
Natural gas	(bcf)	17.3	17.9	14.2	14.0	12.8	58.9	74.8
Total petroleum products	(Mboe)	3,118	3,158	2,533	2,427	2,201	10,319	13,633
Other Americas ^{(3) (4)}								
Crude oil and condensate	(Mboe)	272	185	230	344	198	957	981
NGL	(Mboe)	3	2	4	22	5	33	28
Natural gas	(bcf)	0.1	-	0.1	0.3	-	0.4	0.4
Total petroleum products	(Mboe)	292	187	251	412	209	1,059	1,076
UK ⁽⁵⁾								
Crude oil and condensate	(Mboe)	-	-	-	-	-	-	72
NGL	(Mboe)	-	-	-	-	-	-	42
Natural gas	(bcf)	-	-	-	-	-	-	1.4
Total petroleum products	(Mboe)	-	-	-	-	-	-	347
Algeria								
Crude oil and condensate	(Mboe)	910	889	880	854	690	3,313	3,645
Total petroleum products	(Mboe)	910	889	880	854	690	3,313	3,645

Production and sales report

Quarter ended					Year to date	
Jun	Sep	Dec	Mar	Jun	Jun	Jun
2019	2019	2019	2020	2020	2020	2019

Petroleum ⁽¹⁾

Total production

Crude oil and condensate	(Mboe)	11,606	10,182	11,412	10,091	9,527	41,212	47,296
NGL	(Mboe)	1,760	2,325	2,000	1,498	1,828	7,651	7,890
Natural gas	(bcf)	97.8	100.4	88.7	80.7	89.8	359.6	396.9
Total	(Mboe)	29,666	29,240	28,195	25,039	26,322	108,796	121,336

- (1) Total boe conversions are based on 6 bcf of natural gas equals 1,000 Mboe. Negative production figures represent finalisation adjustments.
(2) Other Australia includes Minerva and Macedon.
(3) Gulf of Mexico volumes are net of royalties.
(4) Other Americas includes Neptune, Genesis and Overriding Royalty Interest.
(5) BHP completed the sale of its interest in the Bruce and Keith oil and gas fields on 30 November 2018. The sale has an effective date of 1 January 2018.

Production and sales report

Quarter ended					Year to date	
Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Jun 2020	Jun 2019

Copper

Metals production is payable metal unless otherwise stated.

Escondida, Chile ⁽¹⁾

Material mined	(kt)	100,693	101,026	100,057	107,268	75,062	383,413	417,469
Sulphide ore milled	(kt)	32,519	33,956	33,659	33,440	34,755	135,810	125,566
Average concentrator head grade	(%)	0.86%	0.86%	0.87%	0.82%	0.81%	0.84%	0.87%
Production ex mill	(kt)	230.9	245.0	246.1	230.0	236.8	957.9	909.6

Production

Payable copper	(kt)	224.1	237.0	240.3	220.1	228.5	925.9	882.1
Copper cathode (EW)	(kt)	63.5	55.9	68.4	69.6	65.5	259.4	253.2
- Oxide leach	(kt)	23.4	21.9	28.3	29.3	26.8	106.3	87.2
- Sulphide leach	(kt)	40.1	34.1	40.1	40.2	38.7	153.1	165.9
Total copper	(kt)	287.6	292.9	308.7	289.7	294.0	1,185.3	1,135.3

Payable gold concentrate	(troy oz)	74,704	48,801	49,209	35,990	43,422	177,422	286,006
Payable silver concentrate	(troy koz)	2,074	1,626	1,798	1,390	1,599	6,413	8,830

Sales

Payable copper	(kt)	223.4	222.2	248.3	212.0	221.0	903.5	881.1
Copper cathode (EW)	(kt)	67.5	52.3	70.6	65.9	72.1	260.9	249.6
Payable gold concentrate	(troy oz)	74,704	48,801	49,209	35,990	43,422	177,422	286,007
Payable silver concentrate	(troy koz)	2,074	1,626	1,798	1,390	1,599	6,413	8,830

(1) Shown on a 100% basis. BHP interest in saleable production is 57.5%.

Pampa Norte, Chile

Cerro Colorado

Material mined	(kt)	13,534	15,071	18,102	18,710	15,734	67,617	67,458
Ore milled	(kt)	4,740	3,995	5,009	4,574	4,553	18,131	18,888
Average copper grade	(%)	0.64%	0.54%	0.57%	0.54%	0.60%	0.56%	0.60%

Production

Copper cathode (EW)	(kt)	23.4	16.4	13.8	20.4	16.9	67.5	75.2
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Sales

Copper cathode (EW)	(kt)	26.8	14.5	15.8	18.3	18.7	67.3	75.1
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Spence

Material mined	(kt)	19,213	21,040	23,132	23,304	24,082	91,558	82,513
Ore milled	(kt)	5,224	5,635	5,133	5,191	2,829	18,788	20,670
Average copper grade	(%)	1.02%	0.95%	0.90%	0.87%	0.95%	0.91%	1.09%

Production

Copper cathode (EW)	(kt)	50.7	47.5	46.2	43.9	37.6	175.2	171.3
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Sales

Copper cathode (EW)	(kt)	55.0	46.7	44.3	44.8	41.0	176.8	169.9
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Production and sales report

Quarter ended					Year to date	
Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Jun 2020	Jun 2019

Copper (continued)

Metals production is payable metal unless otherwise stated.

Antamina, Peru

Material mined (100%)	(kt)	58,994	59,299	63,224	52,872	13,975	189,370	242,214
Sulphide ore milled (100%)	(kt)	12,864	13,121	13,637	12,906	6,736	46,400	50,439
Average head grades								
- Copper	(%)	1.02%	0.99%	0.96%	0.88%	0.91%	0.94%	1.01%
- Zinc	(%)	0.86%	0.80%	0.82%	1.09%	1.02%	0.92%	0.92%

Production

Payable copper	(kt)	37.4	37.6	36.2	32.9	17.8	124.5	147.2
Payable zinc	(t)	22,469	20,454	22,483	31,789	13,736	88,462	98,112
Payable silver	(troy koz)	1,209	1,101	1,173	1,216	626	4,116	4,758
Payable lead	(t)	770	405	383	621	262	1,671	2,389
Payable molybdenum	(t)	178	405	527	491	243	1,666	1,141

Sales

Payable copper	(kt)	36.0	33.1	43.6	30.8	18.2	125.7	143.6
Payable zinc	(t)	21,750	20,196	23,808	31,007	11,680	86,691	100,239
Payable silver	(troy koz)	937	954	1,396	815	581	3,746	4,393
Payable lead	(t)	296	844	432	151	188	1,615	2,306
Payable molybdenum	(t)	127	173	400	531	223	1,327	1,126

Olympic Dam, Australia

Material mined ⁽¹⁾	(kt)	2,425	2,477	2,347	1,920	1,928	8,672	9,094
Ore milled	(kt)	2,195	2,200	2,153	2,178	2,416	8,947	7,965
Average copper grade	(%)	2.30%	2.31%	2.36%	2.31%	2.17%	2.28%	2.18%
Average uranium grade	(kg/t)	0.65	0.65	0.71	0.69	0.60	0.66	0.64

Production

Copper cathode (ER and EW)	(kt)	45.2	35.1	50.5	38.4	47.6	171.6	160.3
Payable uranium	(t)	975	937	949	776	1,016	3,678	3,565
Refined gold	(troy oz)	37,032	43,205	35,382	33,235	34,150	145,972	106,968
Refined silver	(troy koz)	268	245	203	241	295	984	923

Sales

Copper cathode (ER and EW)	(kt)	50.5	32.1	49.0	41.4	48.5	171.0	158.4
Payable uranium	(t)	1,427	778	638	702	1,293	3,411	3,570
Refined gold	(troy oz)	36,133	40,073	36,507	36,956	37,743	151,279	102,664
Refined silver	(troy koz)	257	250	202	259	270	981	891

(1) Material mined refers to run of mine ore mined and hoisted.

Production and sales report

Quarter ended					Year to date	
Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Jun 2020	Jun 2019

Iron Ore

Iron ore production and sales are reported on a wet tonnes basis.

Pilbara, Australia

Production

Newman	(kt)	17,058	16,316	15,766	16,449	17,110	65,641	66,622
Area C Joint Venture	(kt)	13,837	12,620	12,727	12,179	13,973	51,499	47,440
Yandi Joint Venture	(kt)	17,486	17,827	14,857	17,491	19,087	69,262	65,197
Jimblebar ⁽¹⁾	(kt)	14,209	14,239	17,045	13,911	16,559	61,754	58,546
Wheelarra	(kt)	5	3	-	-	-	3	159
Total production	(kt)	62,595	61,005	60,395	60,030	66,729	248,159	237,964
Total production (100%)	(kt)	71,133	69,257	68,044	68,168	75,589	281,058	269,599

Sales

Lump	(kt)	15,568	14,785	15,982	15,617	17,252	63,636	58,205
Fines	(kt)	48,064	45,509	45,785	44,764	50,904	186,962	180,631
Total	(kt)	63,632	60,294	61,767	60,381	68,156	250,598	238,836
Total sales (100%)	(kt)	72,173	68,291	69,481	68,439	77,048	283,259	270,205

(1) Shown on a 100% basis. BHP interest in saleable production is 85%.

Samarco, Brazil ⁽¹⁾

Production	(kt)	-	-	-	-	-	-	-
Sales	(kt)	-	-	-	-	-	-	10

(1) Mining and processing operations remain suspended following the failure of the Fundão tailings dam and Santarém water dam on 5 November 2015.

Production and sales report

Quarter ended					Year to date	
Jun	Sep	Dec	Mar	Jun	Jun	Jun
2019	2019	2019	2020	2020	2020	2019

Coal

Coal production is reported on the basis of saleable product.

Queensland Coal

Production ⁽¹⁾

BMA

Blackwater	(kt)	1,735	1,045	1,734	1,063	1,703	5,545	6,603
Goonyella	(kt)	2,620	1,489	2,662	1,963	2,651	8,765	8,563
Peak Downs	(kt)	1,649	1,423	1,386	1,339	1,635	5,783	5,933
Saraji	(kt)	1,243	1,214	1,325	1,025	1,399	4,963	4,892
Daunia	(kt)	669	556	579	447	588	2,170	2,178
Caval Ridge	(kt)	1,174	1,178	1,037	1,032	1,102	4,349	3,967
Total BMA	(kt)	9,090	6,905	8,723	6,869	9,078	31,575	32,136
Total BMA (100%)	(kt)	18,180	13,810	17,446	13,738	18,156	63,150	64,272

BHP Mitsui Coal ⁽²⁾

South Walker Creek	(kt)	1,624	1,378	1,196	1,577	1,264	5,415	6,194
Poitrel	(kt)	1,180	1,075	1,005	776	1,272	4,128	4,071
Total BHP Mitsui Coal	(kt)	2,804	2,453	2,201	2,353	2,536	9,543	10,265
Total Queensland Coal	(kt)	11,894	9,358	10,924	9,222	11,614	41,118	42,401
Total Queensland Coal (100%)	(kt)	20,984	16,263	19,647	16,091	20,692	72,693	74,537

Sales

Coking coal	(kt)	7,932	7,299	7,775	7,084	8,325	30,483	30,023
Weak coking coal	(kt)	2,942	2,466	2,475	2,335	2,796	10,072	12,095
Thermal coal	(kt)	350	94	30	224	183	531	1,027
Total	(kt)	11,224	9,859	10,280	9,643	11,304	41,086	43,145
Total (100%)	(kt)	19,789	17,145	18,459	16,928	20,074	72,606	75,885

(1) Production figures include some thermal coal.

(2) Shown on a 100% basis. BHP interest in saleable production is 80%.

NSW Energy Coal, Australia

Production	(kt)	5,412	3,592	3,763	3,810	4,887	16,052	18,257
Sales								
Export thermal coal	(kt)	5,181	3,075	3,952	3,403	4,871	15,301	17,068
Inland thermal coal	(kt)	975	567	-	-	-	567	2,002
Total	(kt)	6,156	3,642	3,952	3,403	4,871	15,868	19,070

Cerrejón, Colombia

Production	(kt)	2,017	2,055	2,315	1,978	767	7,115	9,230
Sales thermal coal - export	(kt)	2,245	2,069	2,261	2,028	1,143	7,501	9,331

Production and sales report

Quarter ended					Year to date	
Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Jun 2020	Jun 2019

Other

Nickel production is reported on the basis of saleable product

Nickel West, Australia

Mt Keith

Nickel concentrate	(kt)	52.8	43.7	31.5	42.8	60.2	178.2	200.4
Average nickel grade	(%)	19.5	18.3	17.3	15.8	16.5	16.9	19.3

Leinster

Nickel concentrate	(kt)	48.3	67.2	56.6	57.8	72.0	253.6	244.2
Average nickel grade	(%)	10.8	10.0	8.6	9.8	10.2	9.7	9.1

Saleable production

Refined nickel ^{(1) (2)}	(kt)	19.9	17.4	11.1	16.6	20.5	65.6	73.6
Intermediates and nickel by-products ^{(1) (3)}	(kt)	8.8	4.2	2.6	4.3	3.4	14.5	13.8
Total nickel ⁽¹⁾	(kt)	28.7	21.6	13.7	20.9	23.9	80.1	87.4

Cobalt by-products	(t)	302	211	120	132	312	775	899
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Sales

Refined nickel ^{(1) (2)}	(kt)	19.9	17.0	10.6	16.8	19.7	64.1	74.4
Intermediates and nickel by-products ^{(1) (3)}	(kt)	8.4	5.7	2.7	2.9	4.2	15.5	12.8
Total nickel ⁽¹⁾	(kt)	28.3	22.7	13.3	19.7	23.9	79.6	87.2

Cobalt by-products	(t)	302	212	131	132	312	787	899
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(1) Production and sales restated to include other nickel by-products.

(2) High quality refined nickel metal, including briquettes and powder.

(3) Nickel contained in matte and by-product streams.