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BHP OPERATIONAL REVIEW FOR THE QUARTER ENDED 30 SEPTEMBER 2022

- We continued to deliver safe and reliable operational performance during the quarter.
- All production and unit cost guidance¹ remains unchanged for the 2023 financial year.
- Jansen Stage 1 is tracking to plan, with civil and mechanical construction activities progressing at the Jansen site and at the port. We are targeting Jansen Stage 1 first production in the 2026 calendar year and have accelerated the Jansen Stage 2 study.
- BHP announced the signing of a large-scale renewable Power Purchase Agreement (PPA) with Alinta Energy, which is expected to halve greenhouse gas (GHG) emissions from the electricity used in our Western Australian Iron Ore (WAIO) port facilities by the end of the 2024 calendar year.

BHP Chief Executive Officer, Mike Henry:

“We have started the new financial year strongly, achieving safe and reliable operating performance. The first quarter included significant planned major maintenance in Western Australia Iron Ore (WAIO), BHP Mitsubishi Alliance (BMA), and Olympic Dam.

Copper production was up nine per cent on the same quarter last year, with strong concentrator throughput at Escondida and record quarterly anode production at Olympic Dam. WAIO continued to perform strongly, with production up by 3% relative to the same period last year, and we managed through substantial rainfall and labour constraints in our coal assets with production only down marginally year on year. Our full year production and unit cost guidance is unchanged.

The South Flank iron ore ramp-up and the Jansen potash project are tracking well, with work ongoing to bring forward first production from Jansen Stage 1 and accelerate Jansen Stage 2.

During the quarter, BHP struck a new agreement to supply our WAIO port facilities with renewable electricity, which is expected to halve GHG emissions from the electricity used, signed an MoU with India’s Tata Steel to collaborate on lower GHG emission steelmaking and announced a partnership with Pan Pacific Copper to reduce GHG emissions from maritime transportation, as we take further action to reduce GHG emissions from our operations and support decarbonisation of our suppliers and customers.

We expect global macro-economic uncertainty in the short term to continue to affect supply chains, energy costs, labour markets and equipment and materials availability. BHP remains well positioned, with a portfolio and balance sheet to withstand external challenges and a strategy positioned to benefit from the global mega-trends of decarbonisation and electrification.”

Production	Sep Q22 (vs Sep Q21)	Sep Q22 (vs Jun Q22)	Sep Q22 vs Jun Q22 commentary
Copper (kt)	410.1 9%	410.1 (11%)	Lower volumes at Escondida due to lower concentrator feed grade, lower ore stacked in prior months at Pampa Norte reducing cathode production, and lower volumes at Olympic Dam as a result of planned refinery maintenance.
Iron ore (Mt)	65.1 3%	65.1 1%	Strong operational performance at WAIO, partially offset by planned car dumper maintenance in the quarter.
Metallurgical coal (Mt)	6.7 (1%)	6.7 (19%)	Lower volumes due to significant wet weather in the quarter, mining higher strip ratio areas, a planned longwall move at Broadmeadow and planned wash plant maintenance at Blackwater, Goonyella and Saraji.
Energy coal (Mt)	2.6 (38%)	2.6 (33%)	Lower volumes due to significant wet weather in the quarter and ongoing labour shortages impacting stripping and mine productivity.
Nickel (kt)	20.7 16%	20.7 10%	Higher volumes due to unplanned downtime at the smelter in the prior period.

Summary

Operational performance

Production and guidance are summarised below.

Production	Sep Q22	Sep Q22 vs Sep Q21	Sep Q22 vs Jun Q22	Current FY23 guidance	
Copper (kt)	410.1	9%	(11%)	1,635 – 1,825	
Escondida (kt)	252.7	4%	(13%)	1,080 – 1,180	Unchanged
Pampa Norte (kt)	70.6	5%	(9%)	240 – 290	Unchanged
Olympic Dam (kt)	49.7	68%	(11%)	195 – 215	Unchanged
Antamina (kt)	37.1	4%	(6%)	120 – 140	Unchanged
Iron ore (Mt)	65.1	3%	1%	249 – 260	
WAIO (Mt)	63.9	3%	1%	246 – 256	Unchanged
WAIO (100% basis) (Mt)	72.1	2%	1%	278 – 290	Unchanged
Samarco (Mt)	1.1	10%	15%	3 – 4	Unchanged
Metallurgical coal - BMA (Mt)	6.7	(1%)	(19%)	29 – 32	
Metallurgical coal - BMA (100% basis) (Mt)	13.3	(1%)	(19%)	58 – 64	Unchanged
Energy coal – NSWEC (Mt)	2.6	(38%)	(33%)	13 – 15	Unchanged
Nickel (kt)	20.7	16%	10%	80 – 90	Unchanged

Corporate update

Decarbonisation

Throughout the September 2022 quarter we've continued to make progress towards our decarbonisation targets and goals and supported efforts to reduce GHG emissions in our value chain.

- BHP entered into a large-scale renewable Power Purchase Agreement (PPA) with Alinta Energy, which is expected to halve emissions from the electricity used in our WAIO port facilities by the end of 2024 based on current forecast demand and compared with FY2020 reported emissions. In addition, BHP and Alinta Energy have entered a Memorandum of Understanding (MoU) in relation to the development of the Shay Gap Wind Farm, currently planned to be 45MW capacity with a targeted first-generation date of 2027.
- BHP signed an MoU with India's Tata Steel to jointly study and develop lower carbon iron and steelmaking technology. The technologies to be explored in this partnership seek to reduce GHG emission intensity of integrated steel mills by up to 30 per cent. The announcement of this partnership takes BHP to a total of five decarbonisation partnerships with steelmakers whose combined output accounts for over 13 per cent of reported global steel production.
- BHP announced a partnership with Pan Pacific Copper (PPC) which aims to reduce GHG emissions from maritime transportation between BHP's mines in Chile and PPC's smelters in Japan through a retrofit installation of a push-button wind-assisted propulsion system on board the M/V Koryu vessel estimated to be around 10 times more efficient than a conventional sail and expected to make the M/V Koryu the lowest GHG emission intensity vessel in its category.

Copper

Production

	Sep Q22	Sep Q22 vs Sep Q21	Sep Q22 vs Jun Q22
Copper (kt)	410.1	9%	(11%)
Zinc (t)	32,685	(2%)	19%
Uranium (t)	817	54%	5%

Copper – Total copper production increased by nine per cent to 410 kt. Guidance for the 2023 financial year remains unchanged at between 1,635 and 1,825 kt.

Escondida copper production increased by four per cent to 253 kt primarily due to higher concentrator feed grade of 0.83 per cent compared to 0.73 per cent in the September 2021 quarter. Guidance for the 2023 financial year remains unchanged at between 1,080 and 1,180 kt, with production weighted toward the second half of the year. Medium term guidance of 1.2 Mtpa of copper production on average over the next five years remains unchanged.

Pampa Norte copper production increased by five per cent to 71 kt reflecting the continued ramp up of the Spence Growth Option (SGO). Guidance for the 2023 financial year remains unchanged at between 240 and 290 kt. This reflects plant design modification shutdowns at SGO and the continued transition towards the planned closure of Cerro Colorado at the end of the 2023 calendar year. The SGO plant modifications started in August 2022 and are planned to finish in the 2023 calendar year, with further studies ongoing for additional capacity uplift.

At Spence, we continue to closely monitor previously identified Tailings Storage Facility (TSF) anomalies. We have reduced the volume of water in the tailings facility and continue to work with the local regulatory agencies, including the implementation of a remediation plan for the TSF. The SGO concentrator continues to operate with no impact to production or market guidance. Spence is expected to reach an average of approximately 270 ktpa of production for four years (including cathodes) following the completion of the SGO plant modifications and remediation of TSF anomalies.

Olympic Dam copper production increased by 68 per cent to 50 kt primarily as a result of the September 2021 quarter having included the SCM21 major smelter maintenance campaign. Strong smelter performance resulted in record gross anode² production in the September 2022 quarter, however copper cathode production was constrained by planned annual refinery maintenance. Near record gold production was also achieved in the quarter as a result of debottlenecking initiatives implemented in the prior year. Production guidance for the 2023 financial year remains unchanged at between 195 and 215 kt.

Antamina copper production increased by four per cent to 37 kt, reflecting higher concentrator throughput. Zinc production decreased by two per cent to 33 kt reflecting lower zinc head grades. Guidance remains unchanged for the 2023 financial year, with copper production of between 120 and 140 kt, and zinc production of between 115 and 135 kt.

Iron Ore

Production

	Sep Q22	Sep Q22 vs Sep Q21	Sep Q22 vs Jun Q22
Iron ore production (kt)	65,073	3%	1%

Iron ore – Total iron ore production increased by three per cent to 65 Mt. Guidance for the 2023 financial year remains unchanged at between 249 and 260 Mt.

WAIO production increased by three per cent to 64 Mt (72 Mt on a 100 per cent basis), reflecting continued strong supply chain performance and lower COVID-19 related impacts than the prior period, partially offset by wet weather impacts. South Flank ramp up to full production capacity of 80 Mtpa (100 per cent basis) remains on track. Natural variability in the ore grade is expected as the mine progresses through the close to surface material, however this is expected to stabilise as we move deeper into the ore body and achieve full ramp up.

WAIO production guidance for the 2023 financial year remains unchanged at between 246 and 256 Mt (278 and 290 Mt on a 100 per cent basis) and reflects the tie-in of the port debottlenecking project (PDP1) as well as the continued ramp up of South Flank throughout the year.

Samarco production of 1.1 Mt (BHP share) reflected continued production of one concentrator, following the recommencement of iron ore pellet production in December 2020. Guidance for the 2023 financial year is unchanged at between 3 and 4 Mt (BHP share).

Coal

Production

	Sep Q22	Sep Q22 vs Sep Q21	Sep Q22 vs Jun Q22
Metallurgical coal (kt)	6,662	(1%)	(19%)
Energy coal (kt)	2,622	(38%)	(33%)

Metallurgical coal – BMA production was marginally lower than the prior period at 7 Mt (13 Mt on a 100 per cent basis) despite record wet weather during the September 2022 quarter³ and ongoing labour shortages. These impacts have been largely offset by an inventory drawdown, and the continued ramp up of autonomous haul truck fleets at Goonyella. Maintenance activities completed in the quarter included a planned longwall move at Broadmeadow, planned wash plant maintenance at both Saraji and Blackwater, and the commencement of wash plant maintenance at Goonyella in September.

The near tripling of top end royalties by the Queensland Government remains a serious concern and threat to investment and jobs in that state. We see strong long-term demand from global steelmakers for Queensland's high-quality metallurgical coal. In the absence of fiscal terms that are both competitive and predictable, we are unable to make significant new investments in Queensland.

Guidance for the 2023 financial year remains unchanged at between 29 and 32 Mt (58 and 64 Mt on a 100 per cent basis).

Energy coal – New South Wales Energy Coal (NSWEC) production decreased by 38 per cent to 3 Mt, reflecting the ongoing impacts of significant wet weather with more than three times the amount of rainfall than the prior year,⁴ continued labour shortages impacting stripping performance and mine productivity, and an increased proportion of washed coal. Higher quality coals made up approximately 85 per cent of sales compared to approximately 70 per cent in the September 2021 quarter. Guidance for the 2023 financial year remains unchanged at between 13 and 15 Mt.

Other

Nickel production

	Sep Q22	Sep Q22 vs Sep Q21	Sep Q22 vs Jun Q22
Nickel (kt)	20.7	16%	10%

Nickel – Nickel West production increased by 16 per cent to 21 kt, reflecting the completion of planned maintenance across the supply chain in the prior period. Guidance for the 2023 financial year remains unchanged at between 80 and 90 kt, weighted to the second half of the year due to planned smelter maintenance in the December 2022 quarter.

Potash – Our major potash project under development is tracking to plan. For the 2023 financial year, we will continue to focus on civil and mechanical construction on the surface and underground, as well as equipment procurement and port construction.

Projects

Project and ownership	Capital expenditure US\$M	Initial production target date	Capacity	Progress
Jansen Stage 1 (Canada) 100%	5,723	End-CY26	Design, engineering and construction of an underground potash mine and surface infrastructure, with capacity to produce 4.35 Mtpa.	Approved in August 2021, project is 11% complete

Minerals exploration

Minerals exploration expenditure for the September 2022 quarter was US\$73 million, of which US\$58 million was expensed.

Following our agreement with Midland Exploration in April 2022 to fund a new nickel exploration program in Nunavik, Quebec, on 21 July 2022 we extended our strategic alliance for one year until August 2023, including agreement to provide additional funding for the program.

At Oak Dam in South Australia, BHP is continuing next stage resource definition drilling with six drill rigs.

Variance analysis relates to the relative performance of BHP and/or its operations during the three months ended September 2022 compared with the three months ended September 2021, 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.

The following footnotes apply to this Operational Review:

- 1 2023 financial year unit cost guidance: Escondida US\$1.25-1.45/lb, WAIO US\$18-19/t, and BMA of US\$90-100/t; based on exchange rates of AUD/USD 0.72 and USD/CLP 830.
- 2 Anode is the product from the smelting process at Olympic Dam. Anode is converted to copper cathode through the refining process.
- 3 BMA experienced the wettest September quarter in 10 years with 212mm of rainfall recorded at Moranbah in the September 2022 quarter compared to 123mm in the September 2021 quarter.
- 4 Rainfall of 297mm was recorded at Muswellbrook in the September 2022 quarter, compared to 96mm in the September 2021 quarter.

The following abbreviations may have been used throughout this report: 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); megawatt (MW); metre (m); million tonnes (Mt); million tonnes per annum (Mtpa); ounces (oz); pounds (lb); thousand ounces (koz); 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', the 'Group', 'BHP Group', 'we', 'us', 'our' and 'ourselves' are used to refer to BHP Group Limited and, except where the context otherwise requires, our subsidiaries. Refer to note 28 'Subsidiaries' of the Financial Statements in BHP's 30 June 2022 Appendix 4E for a list of our significant subsidiaries. Those terms do not include non-operated assets. 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 and Samarco. BHP Group cautions against undue reliance on any forward-looking statement or guidance in this release, particularly in light of the current economic climate and significant volatility, uncertainty and disruption arising in connection with COVID-19. These forward-looking statements are based on information available as at the date of this release and 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 and which may cause actual results to differ materially from those expressed in the statements contained in this release.

Further information on BHP can be found at: [bhp.com](https://www.bhp.com)

Authorised for lodgement by:
Stefanie Wilkinson
Group Company Secretary

Media Relations

Email: media.relations@bhp.com

Australia and Asia

Gabrielle Notley
Tel: +61 3 9609 3830 Mobile: +61 411 071 715

Europe, Middle East and Africa

Neil Burrows
Tel: +44 20 7802 7484 Mobile: +44 7786 661 683

Americas

Renata Fernandez
Mobile: +56 9 8229 5357

Investor Relations

Email: investor.relations@bhp.com

Australia and Asia

Dinesh Bishop
Mobile: +61 407 033 909

Europe, Middle East and Africa

James Bell
Tel: +44 20 7802 7144 Mobile: +44 7961 636 432

Americas

Monica Nettleton
Mobile: +1 416 518 6293

BHP Group Limited ABN 49 004 028 077
LEI WZE1WSENV6JSZFK0JC28
Registered in Australia
Registered Office: Level 18, 171 Collins Street
Melbourne Victoria 3000 Australia
Tel +61 1300 55 4757 Fax +61 3 9609 3015

BHP Group is headquartered in Australia
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Production summary

	BHP interest	Quarter ended					Year to date	
		Sep 2021	Dec 2021	Mar 2022	Jun 2022	Sep 2022	Sep 2022	Sep 2021
Copper¹								
Copper								
Payable metal in concentrate (kt)								
Escondida ²	57.5%	194.7	196.2	178.2	233.5	203.1	203.1	194.7
Pampa Norte ³	100.0%	26.4	24.2	32.4	28.2	28.6	28.6	26.4
Antamina	33.8%	35.8	38.4	36.1	39.6	37.1	37.1	35.8
Total		256.9	258.8	246.7	301.3	268.8	268.8	256.9
Cathode (kt)								
Escondida ²	57.5%	49.0	48.4	48.2	55.8	49.6	49.6	49.0
Pampa Norte ³	100%	41.1	44.1	35.8	49.0	42.0	42.0	41.1
Olympic Dam	100%	29.5	14.2	39.0	55.7	49.7	49.7	29.5
Total		119.6	106.7	123.0	160.5	141.3	141.3	119.6
Total copper (kt)		376.5	365.5	369.7	461.8	410.1	410.1	376.5
Lead								
Payable metal in concentrate (t)								
Antamina	33.8%	378	277	282	181	228	228	378
Total		378	277	282	181	228	228	378
Zinc								
Payable metal in concentrate (t)								
Antamina	33.8%	33,289	29,603	32,732	27,576	32,685	32,685	33,289
Total		33,289	29,603	32,732	27,576	32,685	32,685	33,289
Gold								
Payable metal in concentrate (troy oz)								
Escondida ²	57.5%	41,962	42,937	36,303	45,770	38,236	38,236	41,962
Pampa Norte ³	100%	6,967	5,776	7,929	8,198	5,521	5,521	6,967
Olympic Dam (refined gold)	100%	26,277	37,805	29,355	26,080	47,184	47,184	26,277
Total		75,206	86,518	73,587	80,048	90,941	90,941	75,206
Silver								
Payable metal in concentrate (troy koz)								
Escondida ²	57.5%	1,291	1,462	1,270	1,311	1,210	1,210	1,291
Pampa Norte ³	100%	273	215	261	262	252	252	273
Antamina	33.8%	1,367	1,308	1,191	1,212	1,190	1,190	1,367
Olympic Dam (refined silver)	100%	191	258	149	145	295	295	191
Total		3,122	3,243	2,871	2,930	2,947	2,947	3,122
Uranium								
Payable metal in concentrate (t)								
Olympic Dam	100%	531	287	781	776	817	817	531
Total		531	287	781	776	817	817	531
Molybdenum								
Payable metal in concentrate (t)								
Pampa Norte ³	100%	-	-	-	71	34	34	-
Antamina	33.8%	142	217	190	249	262	262	142
Total		142	217	190	320	296	296	142

Production summary

	BHP interest	Quarter ended				Year to date	
		Sep 2021	Dec 2021	Mar 2022	Jun 2022	Sep 2022	Sep 2021
Iron Ore							
Iron Ore							
Production (kt) ⁴							
Newman	85%	16,461	14,577	11,940	14,063	14,053	16,461
Area C Joint Venture	85%	18,947	22,911	24,888	27,685	26,971	18,947
Yandi Joint Venture	85%	11,834	12,261	8,418	6,409	5,497	11,834
Jimblebar ⁵	85%	15,009	15,324	13,444	15,005	17,404	15,009
Samarco	50%	1,048	1,029	994	1,000	1,148	1,048
Total		63,299	66,102	59,684	64,162	65,073	63,299
Coal							
Metallurgical coal							
Production (kt) ⁶							
BHP Mitsubishi Alliance (BMA)	50%	6,715	6,300	7,944	8,183	6,662	6,715
Total		6,715	6,300	7,944	8,183	6,662	6,715
Energy coal							
Production (kt)							
NSW Energy Coal	100%	4,238	2,967	2,577	3,919	2,622	4,238
Total		4,238	2,967	2,577	3,919	2,622	4,238
Other							
Nickel							
Saleable production (kt)							
Nickel West	100%	17.8	21.5	18.7	18.8	20.7	17.8
Total		17.8	21.5	18.7	18.8	20.7	17.8
Cobalt							
Saleable production (t)							
Nickel West	100%	177	220	125	110	238	177
Total		177	220	125	110	238	177

1 Metal production is reported on the basis of payable metal.

2 Shown on a 100% basis. BHP interest in saleable production is 57.5%.

3 Includes Cerro Colorado and Spence.

4 Iron ore production is reported on a wet tonnes basis.

5 Shown on a 100% basis. BHP interest in saleable production is 85%.

6 Metallurgical coal production is reported on the basis of saleable product. Production figures may include some thermal coal.

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	
Sep	Dec	Mar	Jun	Sep	Sep	Sep
2021	2021	2022	2022	2022	2022	2021

Copper

Metals production is payable metal unless otherwise stated.

Escondida, Chile ¹

Material mined	(kt)	113,874	117,284	107,676	115,409	110,248	110,248	113,874
Concentrator throughput	(kt)	33,528	35,787	30,235	34,318	32,894	32,894	33,528
Average copper grade - concentrator	(%)	0.73%	0.71%	0.80%	0.88%	0.83%	0.83%	0.73%
Production ex mill	(kt)	201.2	203.6	191.5	239.5	214.6	214.6	201.2

Production

Payable copper	(kt)	194.7	196.2	178.2	233.5	203.1	203.1	194.7
Copper cathode (EW)	(kt)	49.0	48.4	48.2	55.8	49.6	49.6	49.0
- Oxide leach	(kt)	14.8	13.1	12.2	17.5	15.2	15.2	14.8
- Sulphide leach	(kt)	34.2	35.3	36.0	38.3	34.4	34.4	34.2
Total copper	(kt)	243.7	244.6	226.4	289.3	252.7	252.7	243.7
Payable gold concentrate	(troy oz)	41,962	42,937	36,303	45,770	38,236	38,236	41,962
Payable silver concentrate	(troy koz)	1,291	1,462	1,270	1,311	1,210	1,210	1,291

Sales

Payable copper	(kt)	190.5	200.2	177.0	230.4	196.7	196.7	190.5
Copper cathode (EW)	(kt)	46.7	49.7	47.2	58.9	45.9	45.9	46.7
Payable gold concentrate	(troy oz)	41,962	42,937	36,303	45,770	38,236	38,236	41,962
Payable silver concentrate	(troy koz)	1,291	1,462	1,270	1,311	1,210	1,210	1,291

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

Pampa Norte, Chile

Cerro Colorado

Material mined	(kt)	5,378	4,782	3,516	3,604	3,179	3,179	5,378
Ore stacked	(kt)	3,566	4,029	3,181	4,259	4,373	4,373	3,566
Average copper grade - stacked	(%)	0.60%	0.62%	0.53%	0.55%	0.54%	0.54%	0.60%

Production

Copper cathode (EW)	(kt)	13.4	15.3	11.6	14.7	12.8	12.8	13.4
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Sales

Copper cathode (EW)	(kt)	12.1	16.0	10.5	16.2	13.3	13.3	12.1
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Spence

Material mined	(kt)	21,154	24,025	24,040	26,749	26,956	26,956	21,154
Ore stacked	(kt)	5,258	5,071	5,055	5,099	5,577	5,577	5,258
Average copper grade - stacked	(%)	0.64%	0.66%	0.67%	0.66%	0.70%	0.70%	0.64%
Concentrator throughput	(kt)	5,786	6,234	6,512	6,311	6,433	6,433	5,786
Average copper grade - concentrator	(%)	0.65%	0.60%	0.65%	0.66%	0.63%	0.63%	0.65%

Production

Payable copper	(kt)	26.4	24.2	32.4	28.2	28.6	28.6	26.4
Copper cathode (EW)	(kt)	27.7	28.8	24.2	34.3	29.2	29.2	27.7
Total copper	(kt)	54.1	53.0	56.6	62.5	57.8	57.8	54.1
Payable gold concentrate	(troy oz)	6,967	5,776	7,929	8,198	5,521	5,521	6,967
Payable silver concentrate	(troy koz)	273	215	261	262	252	252	273
Payable molybdenum	(t)	-	-	-	71	34	34	-

Sales

Payable copper	(kt)	28.4	24.9	28.1	28.1	26.0	26.0	28.4
Copper cathode (EW)	(kt)	27.7	31.2	20.2	35.4	29.1	29.1	27.7
Payable gold concentrate	(troy oz)	6,967	5,776	7,929	8,198	5,521	5,521	6,967
Payable silver concentrate	(troy koz)	273	215	261	262	252	252	273
Payable molybdenum	(t)	-	-	-	25	25	25	-

Production and sales report

		Quarter ended				Year to date	
		Sep	Dec	Mar	Jun	Sep	Sep
		2021	2021	2022	2022	2022	2021

Copper (continued)

Metals production is payable metal unless otherwise stated.

Antamina, Peru

Material mined (100%)	(kt)	66,581	58,179	58,118	64,026	63,865	63,865	66,581
Concentrator throughput (100%)	(kt)	13,219	13,011	13,135	13,131	13,858	13,858	13,219
Average head grades								
- Copper	(%)	0.97%	1.00%	0.94%	1.02%	0.93%	0.93%	0.97%
- Zinc	(%)	1.16%	1.11%	1.13%	1.05%	1.09%	1.09%	1.16%

Production

Payable copper	(kt)	35.8	38.4	36.1	39.6	37.1	37.1	35.8
Payable zinc	(t)	33,289	29,603	32,732	27,576	32,685	32,685	33,289
Payable silver	(troy koz)	1,367	1,308	1,191	1,212	1,190	1,190	1,367
Payable lead	(t)	378	277	282	181	228	228	378
Payable molybdenum	(t)	142	217	190	249	262	262	142

Sales

Payable copper	(kt)	32.7	41.9	32.9	40.7	37.6	37.6	32.7
Payable zinc	(t)	32,635	32,513	29,920	30,847	33,820	33,820	32,635
Payable silver	(troy koz)	1,103	1,405	1,078	1,230	1,015	1,015	1,103
Payable lead	(t)	232	344	269	363	130	130	232
Payable molybdenum	(t)	86	170	199	205	250	250	86

Olympic Dam, Australia

Material mined ¹	(kt)	1,935	1,998	2,424	2,477	2,412	2,412	1,935
Ore milled	(kt)	2,024	1,105	2,122	2,436	2,570	2,570	2,024
Average copper grade	(%)	2.03%	2.17%	2.21%	2.15%	2.13%	2.13%	2.03%
Average uranium grade	(kg/t)	0.55	0.55	0.62	0.56	0.58	0.58	0.55

Production

Copper cathode (ER and EW)	(kt)	29.5	14.2	39.0	55.7	49.7	49.7	29.5
Payable uranium	(t)	531	287	781	776	817	817	531
Refined gold	(troy oz)	26,277	37,805	29,355	26,080	47,184	47,184	26,277
Refined silver	(troy koz)	191	258	149	145	295	295	191

Sales

Copper cathode (ER and EW)	(kt)	29.1	17.9	36.3	55.8	45.9	45.9	29.1
Payable uranium	(t)	536	541	236	1,031	272	272	536
Refined gold	(troy oz)	24,654	38,768	30,935	24,622	49,542	49,542	24,654
Refined silver	(troy koz)	126	290	182	87	320	320	126

¹ Material mined refers to underground ore mined, subsequently hoisted or trucked to surface.

Production and sales report

Quarter ended					Year to date	
Sep 2021	Dec 2021	Mar 2022	Jun 2022	Sep 2022	Sep 2022	Sep 2021

Iron Ore

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

Western Australia Iron Ore, Australia

Production

Newman	(kt)	16,461	14,577	11,940	14,063	14,053	14,053	16,461
Area C Joint Venture	(kt)	18,947	22,911	24,888	27,685	26,971	26,971	18,947
Yandi Joint Venture	(kt)	11,834	12,261	8,418	6,409	5,497	5,497	11,834
Jimblebar ¹	(kt)	15,009	15,324	13,444	15,005	17,404	17,404	15,009
Total production	(kt)	62,251	65,073	58,690	63,162	63,925	63,925	62,251
Total production (100%)	(kt)	70,587	73,852	66,674	71,660	72,135	72,135	70,587

Sales

Lump	(kt)	17,546	17,827	16,966	20,006	19,561	19,561	17,546
Fines	(kt)	45,039	46,809	42,187	44,308	42,696	42,696	45,039
Total	(kt)	62,585	64,636	59,153	64,314	62,257	62,257	62,585
Total sales (100%)	(kt)	70,815	73,222	67,110	72,796	70,276	70,276	70,815

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

Samarco, Brazil

Production	(kt)	1,048	1,029	994	1,000	1,148	1,148	1,048
Sales	(kt)	1,111	950	943	991	1,146	1,146	1,111

Production and sales report

Quarter ended					Year to date	
Sep	Dec	Mar	Jun	Sep	Sep	Sep
2021	2021	2022	2022	2022	2022	2021

Coal

Coal production is reported on the basis of saleable product.

BHP Mitsubishi Alliance (BMA), Australia

Production ¹

Blackwater	(kt)	1,403	1,202	1,478	1,751	1,283	1,283	1,403
Goonyella	(kt)	1,798	1,797	2,336	2,429	1,780	1,780	1,798
Peak Downs	(kt)	1,223	960	1,395	1,366	1,325	1,325	1,223
Saraji	(kt)	999	1,081	1,366	1,168	1,020	1,020	999
Daunia	(kt)	377	304	338	472	324	324	377
Caval Ridge	(kt)	915	956	1,031	997	930	930	915
Total production	(kt)	<u>6,715</u>	<u>6,300</u>	<u>7,944</u>	<u>8,183</u>	<u>6,662</u>	<u>6,662</u>	<u>6,715</u>
Total production (100%)	(kt)	<u>13,430</u>	<u>12,600</u>	<u>15,888</u>	<u>16,366</u>	<u>13,324</u>	<u>13,324</u>	<u>13,430</u>

Sales

Coking coal	(kt)	5,415	4,875	6,334	6,734	5,615	5,615	5,415
Weak coking coal	(kt)	734	754	805	1,118	600	600	734
Thermal coal	(kt)	576	455	484	765	267	267	576
Total sales	(kt)	<u>6,725</u>	<u>6,084</u>	<u>7,623</u>	<u>8,617</u>	<u>6,482</u>	<u>6,482</u>	<u>6,725</u>
Total sales (100%)	(kt)	<u>13,450</u>	<u>12,168</u>	<u>15,246</u>	<u>17,234</u>	<u>12,964</u>	<u>12,964</u>	<u>13,450</u>

¹ Production figures include some thermal coal.

NSW Energy Coal, Australia

Production	(kt)	4,238	2,967	2,577	3,919	2,622	2,622	4,238
Sales thermal coal - export	(kt)	3,780	3,718	2,703	3,923	2,441	2,441	3,780

Production and sales report

Quarter ended					Year to date	
Sep 2021	Dec 2021	Mar 2022	Jun 2022	Sep 2022	Sep 2022	Sep 2021

Other

Nickel production is reported on the basis of saleable product

Nickel West, Australia

Mt Keith

Nickel concentrate	(kt)	53.7	47.0	47.1	48.0	42.6	42.6	53.7
Average nickel grade	(%)	14.6	13.2	14.4	16.1	17.0	17.0	14.6

Leinster

Nickel concentrate	(kt)	73.8	77.4	78.0	76.0	66.8	66.8	73.8
Average nickel grade	(%)	8.9	9.1	8.9	10.3	9.9	9.9	8.9

Saleable production

Refined nickel ¹	(kt)	14.4	18.2	13.3	11.7	17.5	17.5	14.4
Nickel sulphate ²	(kt)	-	0.4	0.7	0.5	1.2	1.2	-
Intermediates and nickel by-products ³	(kt)	3.4	2.9	4.7	6.6	2.0	2.0	3.4
Total nickel	(kt)	17.8	21.5	18.7	18.8	20.7	20.7	17.8

Cobalt by-products	(t)	177	220	125	110	238	238	177
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Sales

Refined nickel ¹	(kt)	13.8	16.9	15.3	11.7	18.1	18.1	13.8
Nickel sulphate ²	(kt)	-	0.1	0.7	0.5	0.8	0.8	-
Intermediates and nickel by-products ³	(kt)	3.9	3.1	2.7	6.4	1.8	1.8	3.9
Total nickel	(kt)	17.7	20.1	18.7	18.6	20.7	20.7	17.7

Cobalt by-products	(t)	177	220	125	110	238	238	177
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¹ High quality refined nickel metal, including briquettes and powder.

² Nickel sulphate crystals produced from nickel powder.

³ Nickel contained in matte and by-product streams.