Nexa Reports Fourth Quarter and Full Year 2022 Results including Adjusted EBITDA Record of US$760 Million

Luxembourg, February 15, 2023 *– Nexa Resources S.A. ("Nexa Resources", "Nexa", or "Company") announces today its results for the three and twelve months ended December 31, 2022 and provides its production and metal sales guidance for the three-year period 2023-2025. The Company is also providing cash cost, capital expenditures and other operating expenses guidance for 2023.*

CEO Message – Ignacio Rosado

"The fourth quarter of 2022 marked my first full year as CEO of Nexa, where I focused on increasing efficiency across our organization. We deployed a set of initiatives and new ways of working, which streamlined our cost base, as well as supported our strategic priorities.

We achieved 2022 operational guidance with strong financial and operational discipline, despite a very challenging environment. Metal production and sales were at the high end, or above guidance range, while mining and smelting costs were in line and below guidance, respectively.

On the other hand, the Russia-Ukraine war significantly increased commodity price volatility, contributing to a slowdown in global growth, and intensifying inflationary pressures in 2022, a period in which the world economy was still recovering from the pandemic.

Aripuanã ramp-up continues to progress, and we are pleased to have sold commercial grade concentrates and to inform that Aripuanã has achieved its first revenue in the fourth quarter. We also processed zinc in concentrate from Aripuanã at the Juiz de Fora smelter. The results of our continued drilling activities indicate a potential increase in mineral reserves of more than 35% over the 22 million tonnes reported last year. We remain confident that Aripuanã will be a long-life flagship mine with a significant contribution to our results.

We have updated our long-term ESG targets, reaffirming our ongoing commitments and efforts to reduce our carbon footprint, supporting the important mission to mitigate global climate challenges. Moreover, we continue to strengthen and promote an equal opportunities environment while creating safe and inclusive workplaces.

We know that 2023 will likely be another challenging year, in which the risk of a global recession remains high. In Peru, we are closely monitoring the socio-political environment which, to date, has not affected our operations and in Brazil, inflationary pressures are expected to remain in the course of the year. Nevertheless, we will seek to maintain our investments to extend the LOM of our assets, in addition to ongoing assessments of our project portfolio. We are committed to disciplined capital allocation and positive cash flow generation in the short and long term. We are prepared to capitalize on new opportunities in our operations, always striving to create shared value for all our stakeholders and the communities in which we operate."

Summary of Financial Performance

US$ million (except per share amounts)	**4Q22**	**4Q21**	**2022**	**2021**
Net revenues	**780**	678	3,034	2,622
Gross profit	**84**	94	639	633
Net income (loss)	**(81)**	11	76	156
EBITDA [(1)]	**36**	137	650	705
Basic and diluted earnings per share ("EPS")	**(0.62)**	0.01	0.37	0.86
Adjusted net income [(1)]	**3**	28	187	195

US$ million (except per share amounts)	**4Q22**	**4Q21**	**2022**	**2021**
Adjusted EBITDA (1)	**120**	153	760	744
Adjusted basic and diluted EPS (1)	**(0.04)**	0.11	1.14	1.11
Cash provided by operating activities before working capital (1) (2)	**141**	153	702	700
Capex	**116**	164	381	508
Free cash flows (1)	**(20)**	(42)	(246)	(342)
Total cash (3)	**516**	763	516	763
Net debt (1)	**1,161**	962	1,161	962

(1) Refer to "Use of Non-IFRS Financial Measures" for further information. During December 2022, the Company revised its Adjusted EBITDA definition to exclude certain items to provide a better understanding of its operational and financial performance. Adjusted EBITDA, adjusted net income (loss) and adjusted EPS, excludes the items presented in the Adjusted EBITDA reconciliation on pages 20 and 58 of this earnings release. 2021 and 2022 previous numbers have been reclassified according to the updated definition. For details on segment definition and accounting policy, please refer to explanatory note 2 – "Information by business segment" in the "Consolidated financial statements at December 31, 2022".

(2) Working capital in 4Q22 had a negative impact of US$0.5 million, totaling negative US$203 million in 2022. Working capital in 4Q21 had a positive impact of US$4.5 million, totaling negative US$38 million in 2021.

(3) Cash, cash equivalents and financial investments.

Executive Summary

Operational Performance

- Zinc production of 75kt in 4Q22 decreased by 8% compared to 4Q21, mainly due to grade reduction in Cerro Lindo and El Porvenir. Compared to 3Q22, zinc production followed the same trend and decreased by 2%. Zinc production totaled 296kt in 2022, compared to 320kt in 2021.
- Run of mine mining cost in 4Q22 was US$47/t compared to US$44/t in 4Q21 reflecting inflationary cost pressure, including energy and maintenance, in addition to higher personnel expenses and third-party services. These were partially offset by our cost control initiatives and higher treated ore. Compared to 3Q22, run of mine mining cash cost increased by 8% primarily driven by third-party services, including increased maintenance in the period.
- Mining cash cost net of by-products[1] in 4Q22 was US$0.20/lb compared with US$0.25/lb in 4Q21 and US$0.57/lb in 3Q22. In both comparisons, this decrease was mainly due to higher by-products credits.
- The smelting segment performed as expected, with metal production of 157kt increasing by 2% from 4Q21, driven by increased production in all three smelters. Compared to 3Q22, production decreased by 1%.
- In 4Q22, metal sales were 167kt, up by 6% and 3% from 4Q21 and 3Q22, respectively.
- Smelting conversion cost was US$0.25/lb in 4Q22 compared with US$0.23/lb in 4Q21 due to inflationary impacts on costs, including energy and maintenance, in addition to higher personnel expenses. Compared to 3Q22, conversion cost decreased by US$0.01/lb.
- Smelting cash cost[1] in 4Q22 was US$1.20/lb compared with US$1.28/lb in 4Q21, mainly explained by market-related factors, such as lower zinc prices with a positive impact of US$0.08/lb. LME zinc price averaged US$3,001/t (US$1.36/lb) in 4Q22, down 11% year-over-year. Compared to 3Q22, smelting cash cost decreased by 12% due to lower operating costs and higher volumes.

Mining production (metal in concentrate)		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**1Q21**	**2Q21**	**3Q21**	**4Q21**	**2021**
Zinc	kt	**74.9**	76.0	79.2	66.3	296.4	77.4	81.6	79.9	81.1	319.9
Copper	kt	**9.3**	7.4	9.6	6.9	33.2	7.9	6.9	7.8	7.0	29.6

[1] Our cash cost net of by-products credits is measured with respect to zinc sold.

Mining production (metal in concentrate)		4Q22	3Q22	2Q22	1Q22	2022	1Q21	2Q21	3Q21	4Q21	2021
Lead	kt	**15.7**	15.3	14.2	12.4	57.4	10.4	11.7	10.8	12.7	45.6
Silver	MMoz	**2.6**	2.6	2.6	2.2	10.0	2.1	2.2	2.2	2.3	8.8
Gold	koz	**6.9**	7.1	6.9	6.4	27.2	4.8	6.1	6.4	8.2	25.5
Smelting sales		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**1Q21**	**2Q21**	**3Q21**	**4Q21**	**2021**
Metal	kt	**167.4**	162.3	152.1	134.3	616.2	148.4	156.6	155.5	158.4	618.8
Zinc metal		**158.9**	151.7	141.4	124.0	575.9	138.5	146.7	144.6	148.1	577.9
Zinc oxide		**8.5**	10.7	10.8	10.4	40.3	9.8	9.9	10.9	10.3	40.9

Financial Performance

- Net revenues in 4Q22 were US$780 million compared with US$678 million in 4Q21 due to the increase in metal sales, partially offset by lower LME metal prices across all metals. Compared to 3Q22, net revenues increased by 11% as a result of higher metal sales and copper concentrate volumes, partially offset by lower LME zinc prices. In 2022, net revenues were US$3,034 million, up 16% over 2021, primarily driven by higher LME zinc prices.
- In December 2022, Nexa revised its Adjusted EBITDA definition to exclude certain items, aiming to provide a better understanding of its operational and financial performance. Please refer to page 20 and 58 for more information.
- Adjusted EBITDA[2] in 4Q22 decreased to US$120 million, compared with US$153 million in 4Q21 and US$121 million in 3Q22. Adjusted EBITDA for the twelve months ended December 31, 2022, was a record of US$760 million compared with US$744 million in 2021.
- Adjusted EBITDA for the mining segment in 4Q22 was US$78 million compared with US$64 million in 3Q22. This increase was mainly driven by higher by-products contribution, partially offset by lower zinc prices and a negative impact of US$14 million in Aripuanã related to sales of concentrates with higher unit costs. Compared to 4Q21, Adjusted EBITDA decreased by 36%.
- In 2022, Adjusted EBITDA for the mining segment totaled US$440 million, down 8% compared to US$477 million in 2021.
- Adjusted EBITDA for the smelting segment in 4Q22 was US$46 million compared with US$58 million in 3Q22. This decrease was mainly driven by a non-cash impact of US$14 million related to our annual review of environmental liabilities and provisions update. Compared to 4Q21, Adjusted EBITDA increased by 44%.
- In 2022, Adjusted EBITDA for the smelting segment was US$326 million, up 20% compared to 2021.
- As part of the continuous review of our assets portfolio, Nexa recognized a non-cash US$33 million pre-tax net impairment loss in 4Q22 primarily related to (i) Cerro Pasco (impairment reversal), given the improved results and the potential increase in production due to the proposed optimization of the integration of El Porvenir and Atacocha mines; (ii) the decision made by the Company and the Board not to move forward with Shalipayco and Pukaqaqa greenfield projects; and (iii) an impairment loss in the Mine Peru Group related to the write-off of goodwill.
- In 4Q22, adjusted net income was US$3 million, and adjusted net income totaled US$187 million in 2022. Adjusted net loss attributable to Nexa's shareholders was US$6 million in 4Q22, with an adjusted net income attributable to Nexa's shareholders of US$151 million in 2022, which resulted in adjusted losses per share of US$0.04 and adjusted EPS of US$1.14, respectively.

[2] Adjusted EBITDA excludes the items presented in the Adjusted EBITDA reconciliation on pages 20 and 58 of this earnings release – US$84 million in 4Q22, totaling US$110 million in 2022.

Financial Position, Investments and Financing

- Total cash[3] decreased to US$516 million at December 31, 2022 from US$763 million at December 31, 2021 mainly due to Aripuanã investments (sustaining and expansion CAPEX, pre-operating expenses and working capital) of approximately US$226 million. Our current available liquidity remains strong at US$816 million, including the revolving credit facility.
- In 2022, cash flows from operating activities excluding working capital changes amounted to US$702 million. Interest and income tax payments amounted to US$229 million, while we invested US$234 million in sustaining (including HSE investments). As a result, cash flow before expansion projects and working capital was positive at US$239 million.
- In 2022, Aripuanã expansion CAPEX was US$66 million and sustaining was US$46 million. Cash used in financing activities totaled US$149 million, including the investment of US$7 million in Tinka and the net cash used for the early redemption of our 2023 Notes of US$38 million. Pollarix, Nexa's energy subsidiary, paid dividends to non-controlling interests of US$21 million. We paid dividends and share premium of US$50 million in 1Q22. The foreign exchange effect on cash and cash equivalents had a positive effect of US$16 million.
- Working capital changes were negative at US$203 million in 2022, mainly due to the increase in inventory levels, including the ore stockpile built at Aripuanã to secure the ramp-up period, and the decrease in trade and confirming payables.
- Consequently, free cash flow in 2022 was negative US$246 million. Refer to our "Net cash flows from operating activities excluding working capital changes and free cash flow - Reconciliation" section for further details.
- Net debt to Adjusted EBITDA ratio for the last twelve months increased to 1.53x compared with 1.41x at the end of September 2022 and 1.29x a year ago.

ESG and Corporate Highlights

- Nexa declared in February 2022 and paid in March 2022 a distribution to Nexa's shareholders of US$50 million.
- In May 2022, Nexa subscribed for 40,792,541 common shares of Tinka Resources and now owns approximately 18.2% of the issued and outstanding common shares of the company and has the right to nominate one member to Tinka's board of directors. Tinka holds 100% of the Ayawilca zinc-silver project, one of the largest zinc deposits in Peru with solid resource expansion potential.
- As previously announced, Mr. José Carlos del Valle was appointed as Nexa's Senior Vice President of Finance and Group Chief Financial Officer ("CFO"), effective October 3, 2022, replacing Mr. Rodrigo Menck.
- During 2022, Nexa updated and enhanced its ESG program, announcing its new long-term environmental, social, and governance commitments, including carbon footprint. We plan to reach net-zero greenhouse gas emissions ("GHG") by 2050 and have announced a number of shorter-term commitments. The Company also became the first international-based sponsor partner of Artemis Project a social enterprise founded by a collective of female entrepreneurs focused on disruptive changes in global economic, environmental, and social development in mining.
- Aligned with our ESG commitment, we have started to recycle the sterile rock from the Ambrósia mine (Morro Agudo), closed in 4Q20. In partnership with a local company, we are selling this material to be used in the construction sector.
- In January 2023, S&P affirmed its "BB+" rating and "stable" outlook for Nexa.
- On February 15, 2023, Nexa's Board approved a distribution to Nexa's shareholders of US$25 million as a share premium (or special dividend), or approximately US$0.188766 per common share, to be paid on March 24, 2023. Nexa may approve an additional dividend payment during the second half of 2023, subject to market conditions and Company's performance.

[3] Cash and cash equivalents and financial investments.

Growth Strategy and Project Portfolio

- In the short term, we continue to work to improve our operational performance while generating cash in our mines and smelters, expanding our current resources through infill and exploratory drilling in all our mines.
- We continuously evaluate our capital allocation strategy, our existing project portfolio, and the jurisdictions in which we operate. After a careful assessment and prioritization of our portfolio optimization, we have decided to not move forward with two of our potential greenfield projects, Shalipayco and Pukaqaqa located in Peru.
- We have continued to make progress with our project to optimize the integration of El Porvenir and Atacocha mines at our Cerro Pasco complex. We plan to increase the capacity of our tailings and shaft and optimize the processing plant, to potentially increase production.
- We are revisiting the Bonsucesso project and the potential impact on the life of mine of Morro Agudo mine and we continue to assess alternatives for our Magistral project taking into consideration our capital allocation strategy and our focus on free cash flow generation.

Aripuanã

- Ramp-up activities have continued to progress and are currently focused on steadily increasing the plant throughput rate, increasing asset reliability, and improving concentrate grades. We closed 4Q22 with plant throughput reaching 53% of nameplate capacity. The ramp-up continues, and we are above 60% at the beginning of February, and we expect to reach nameplate capacity in 2H23.
- In December 2022, we started the shipments of concentrates within market specifications, with an increase in sales planned for 1Q23.
- Mine development activities in both the Arex and Link mines continue. At the end of December 2022, approximately 600kt of ore was available in stockpiles, which is enough to cover 4.5 months of plant production during the continued ramp-up period.
- In 4Q22, we invested in expansion CAPEX of US$3 million, totaling US$66 million in 2022, including the negative FX impact of US$5.5 million, and a cumulative expansion CAPEX since the beginning of construction of US$632 million. Sustaining CAPEX in 2022 was US$46 million.
- Refer to our "Aripuanã project" section for further details.

2022 Results and Guidance

Production and Sales

2022 production guidance for all metals was achieved. Zinc production totaled 296kt in 2022. Cerro Lindo, El Porvenir, and Morro Agudo mines achieved the upper range of the guidance, while Vazante and Atacocha mines exceeded annual guidance. Although Aripuanã ramp up activities have continued to progress, production for Aripuanã was below guidance.

Copper and silver production of 34kt and 10MMoz, respectively, achieved the upper end of the annual guidance, while lead production of 57kt exceeded annual guidance. Further details are outlined below.

- Cerro Lindo: zinc production of 84kt in 2022 was in the mid-range of guidance. The mine sequence continued to favor the production of copper and silver, reaching the upper end of the guidance range for these metals.
- El Porvenir: zinc production of 52kt in 2022 achieved the mid-range of guidance, while copper was slightly below the range, and lead and silver production exceeded the annual guidance.
- Atacocha: zinc production of 10kt in 2022 exceeded the annual guidance, while lead and silver production reached the upper end of guidance.
- Vazante: zinc production of 132kt in 2022 exceeded the annual guidance while, lead achieved the lower end of the range, and silver production reached the upper end of the range.
- Morro Agudo: zinc production of 19kt in 2022 reached the upper range of the guidance, while lead exceeded the upper range.
- Aripuanã: ramp up activities continued to progress. Milling capacity reached 53% of nameplate at the end of the year, behind our initial plan mainly due to heavy rainfall in the period, which required additional operational stoppages in our filters, and also caused power outages.

Mining production (Metal in concentrate)		**2022**	**Guidance 2022**		
Zinc	**kt**	**296**	**287**	**-**	**318**
Cerro Lindo		84	81	-	86
El Porvenir		52	49	-	53
Atacocha		10	9	-	9
Vazante		132	118	-	127
Morro Agudo		19	16	-	19
Aripuanã		1	14	-	23
Copper	**kt**	**33**	**28**	**-**	**35**
Cerro Lindo		33	26	-	33
El Porvenir		0.3	0.3	-	0.3
Aripuanã		0.2	1.6	-	2.3
Lead	**kt**	**57**	**46**	**-**	**55**
Cerro Lindo		16	11	-	12
El Porvenir		23	15	-	18
Atacocha		11	10	-	11
Vazante		1.2	1.0	-	1.2
Morro Agudo		6.2	4.3	-	4.8
Aripuanã		-	5.0	-	7.7

Mining production (Metal in concentrate)		2022	Guidance 2022		
Silver	**MMoz**	**10**	**8.6**	**-**	**10**
Cerro Lindo		4.1	3.9	-	4.1
El Porvenir		4.2	3.1	-	3.6
Atacocha		1.2	1.0	-	1.1
Vazante		0.5	0.3	-	0.4
Aripuanã		-	0.3	-	0.5

Metal sales of 616kt in 2022 exceeded annual guidance driven by the solid performance of our smelters and sustainable global demand. Zinc metal sales of 578kt were above the high end of the guidance range, given the positive demand, increase in exports, and improvement in lead times. Zinc oxide sales of 40kt also exceeded annual guidance supported by solid demand in our home markets, particularly from the pneumatic and agribusiness sectors.

Smelting sales		2022	Guidance 2022		
Metal sales	**kt**	**616**	**565**	**-**	**590**
Zinc metal		578	528	-	551
Zinc oxide		40	37	-	39

Cash Costs

Operating costs	Cost ROM 2022 (US$/t)	Cash cost [1] net of by-product (US$/lb) 2022	Cash cost [1] net of by-product (US$/lb) Guidance 2022
Mining	**44.4**	**0.28**	**0.28**
Cerro Lindo	40.3	(0.25)	(0.26)
El Porvenir	59.8	0.33	0.39
Atacocha	36.7	(0.71)	(0.03)
Vazante	47.6	0.56	0.55
Morro Agudo	42.6	0.98	0.94

[1] 2022 C1 Weighted Cash cost net of by-products credits is measured with respect to zinc sold per mine.

Operating costs	Conversion cost 2022 (US$/lb)	Cash cost [2] net of by-product (US$/lb) 2022	Cash cost [2] net of by-product (US$/lb) Guidance 2022
Smelting	**0.26**	**1.34**	**1.37**
Cajamarquilla	0.27	1.28	1.38
Três Marias	0.19	1.41	1.44
Juiz de Fora	0.37	1.41	1.34

[2] 2022 C1 Weighted Cash cost net of by-products credits is measured with respect to zinc sold per smelter.

- Mining C1 cash cost of US$0.28/lb in 2022 was in line with our 2022 guidance.
- Smelting C1 cash cost of US$1.34/lb in 2022 was 2% lower than our 2022 guidance, positively affected by higher by-products credits.

Capital Expenditures ("CAPEX") Guidance

- Nexa made investments of US$116 million in 4Q22, totaling US$381 million in 2022. Of this amount, 23% was allocated to expansion projects, mainly driven by Aripuanã in the total amount of US$66 million, slightly higher than our annual guidance due to the negative FX impact and additional contract expenses, as previously informed.
- The Brazilian real appreciation against the U.S. dollar had a negative impact of US$2.9 million in the quarter and approximately US$17 million in 2022.
- Sustaining investments were US$240 million, including US$46 million of Aripuanã.

CAPEX (US$ million)	**2022**	**Guidance 2022**
Expansion projects	**88**	**75**
Aripuanã	66	59
Others (1)	22	16
Non-Expansion	**291**	**310**
Sustaining (2)	240	256
HSE	40	36
Others (3)	11	18
Reconciliation to Financial Statements (4)	2	-
TOTAL	**381**	**385**

(1) Including Vazante LOM extension.

(2) Investments in tailing dams are included in sustaining expenses.

(3) Modernization, IT and others.

(4) The amounts are mainly related to capitalization of interest net of advanced payments for imported materials and tax credits.

Exploration & Project Evaluation and Other Expenses Guidance

- In 4Q22 we invested US$23 million in exploration and project evaluation, for a total of US$87 million in 2022 compared to the guidance of US$82 million mainly due to the Brazilian real appreciation against the U.S. dollar with a negative impact of US$5.6 million in 2022.
- We have also invested US$17 million, expanding our commitment to the social and economic development of our host communities, progressing with certain projects, and an additional US$11 million in technology to make our business safer and improve our efficiency.

Other Operating Expenses (US$ million)	**2022**	**Guidance 2022**
Exploration	**64**	**64**
Mineral Exploration	44	43
Mineral rights	5	8
Sustaining (mine development)	15	13
Project Evaluation	**23**	**18**
Exploration & Project Evaluation	**87**	**82**
Other	**29**	**18**
Technology	11	12
Communities	17	5

Guidance 2023-2025

Guidance is based on several assumptions and estimates and is subject to the continuous evaluation of several factors, including but not limited to metal prices; operational performance; maintenance and input costs; and exchange rates.

Nexa will continue to monitor risks associated with global supply chain disruptions, which could be exacerbated by the Russia-Ukraine war, unusual weather conditions and/or increased restrictions related to the COVID-19 pandemic; global recession, and the potential impact on the demand for our products; inflationary cost pressure; metal prices; communities protests, political situation and changes to the regulatory framework in the countries in which we operate that could affect our production levels; among others. Refer to "Risks and Uncertainties" and "Cautionary Statement" for further information.

Production and Sales

Metal contained (in concentrate)		**2022**	**2023e**			**2024e**			**2025e**		
Zinc	**kt**	**296**	**307**	**-**	**351**	**318**	**-**	**379**	**327**	**-**	**383**
Cerro Lindo		84	69	-	79	71	-	92	76	-	85
El Porvenir		52	51	-	55	44	-	57	32	-	37
Atacocha		10	9	-	11	8	-	9	12	-	18
Vazante		132	131	-	144	131	-	141	131	-	149
Morro Agudo		19	17	-	23	17	-	21	17	-	19
Aripuanã		1	28	-	40	45	-	60	58	-	76
Copper	**kt**	**33**	**31**	**-**	**36**	**29**	**-**	**32**	**29**	**-**	**33**
Cerro Lindo		33	25	-	28	23	-	26	24	-	27
El Porvenir		0.3	0.2	-	0.3	0.3	-	0.4	0.3	-	0.3
Aripuanã		0.2	6.3	-	7.8	5.9	-	6.2	4.4	-	5.8
Lead	**kt**	**57**	**56**	**-**	**71**	**64**	**-**	**76**	**70**	**-**	**82**
Cerro Lindo		16	11	-	13	11	-	12	13	-	15
El Porvenir		23	20	-	26	21	-	25	21	-	24
Atacocha		11	10	-	12	12	-	13	11	-	12
Vazante		1	1.1	-	1.2	0.9	-	1.1	0.9	-	1.0
Morro Agudo		6	4.9	-	6.1	4.3	-	4.8	4.3	-	4.8
Aripuanã		-	8.9	-	12.9	15	-	20	19	-	25
Silver	**MMoz**	**10**	**9**	**-**	**11**	**11**	**-**	**12**	**11**	**-**	**13**
Cerro Lindo		4.1	3.5	-	3.8	3.7	-	4.2	4.0	-	4.5
El Porvenir		4.2	3.7	-	4.5	3.9	-	4.5	4.5	-	5.1
Atacocha		1.2	1.0	-	1.2	1.2	-	1.3	1.0	-	1.1
Vazante		0.5	0.3	-	0.4	0.3	-	0.4	0.3	-	0.4
Aripuanã		-	0.8	-	1.2	1.4	-	1.6	1.5	-	2.0

For the forecasted periods, zinc head grade is expected to be in the range of 2.75% and 2.89%, copper head grade is expected to be in the range of 0.29% and 0.30%, and lead head grade is expected to be in the range of 0.65% and 0.68%.

- **Aripuanã:** Three-year guidance reflects the updated mine plan and assumes Aripuanã ramp-up will continue to progress, achieving nameplate capacity in 2H23. Zinc production in 2023 is expected to be between 28-40kt. For 2024, zinc production at mid-range is estimated to increase by 54% over 2023 to 45-60kt, and a further 27% in 2025 over 2024.

  Copper production (assuming mid-range production) in 2023 should increase to 6-8kt before decreasing in 2024 and 2025, as we expect to access lower grade copper areas, following mining plan.
- **Cerro Lindo:** Assuming a total throughput for the mine of 6.0-6.5Mt, annual zinc production is estimated to be between 69-92kt over the next three years. Zinc production at the midpoint of the 2023 guidance range is estimated to decrease by 10kt over 2022 mainly driven by lower zinc head average grade (down to 1.44%). For 2024-2025, zinc production at mid-ranges is expected to increase over 2023 to between 71-92kt explained by higher throughput and with production planned in higher-grade ore bodies following our mine plan.

  Copper production (assuming mid-range production) in 2023 should decrease by 7kt over 2022, and a further 2kt in 2024 over 2023 due to lower copper average grade (down to 0.53% in 2023 and 0.47% in 2024). For 2025, copper production is estimated to increase by 3% over 2024 to between 24 to 27kt. Lead follows the same trend and for 2023-2025 production is expected to total between 11 to 15kt.

  For the three-year period, silver production is expected to total between 3.5-4.5MMoz.
- **El Porvenir:** In 2023, zinc production at the midpoint of the guidance range is estimated to increase by 3% to 51-55kt. For 2024-2025, zinc production is estimated to decrease to 32-57kt with planned mill throughput reduction, assuming the implementation of the mine's integration plan as previously informed.

  For 2023, lead production (assuming mid-range production) is estimated to be similar to 2022, before decreasing in 2024-2025 to 21-25kt, following lower throughput.

  Silver production in 2023 at the midpoint of the guidance range is expected to decrease by 3% over 2022. For 2024, silver production at mid-ranges is expected to increase by 3%, and a further 15% in 2025 due to higher silver average grade areas, following our mining plan.
- **Atacocha:** Zinc production at the midpoint of the 2023 guidance range is estimated to increase by 7% over 2022. For 2024, zinc production at mid-ranges is expected to decrease by 2kt, before increasing to 12-18kt in 2025 due to the forecasted underground mine integration with El Porvenir.

  Lead production (assuming mid-range production) in 2023 is estimated to decrease by 3% over 2022. For 2024, lead production is estimated to increase by 14% with production planned in higher-grade ore bodies following our mine plan, before decreasing to 11-12kt due to the expected lower lead average grade.
- **Vazante:** Zinc production at the midpoint of the 2023 guidance range is estimated to increase by 5% driven by higher throughput and zinc average grade (up to 10.4%) compared to 2022, which was affected by heavy rainfall levels in the state of Minas Gerais in 1Q22. For 2024-2025, zinc production is estimated to be between 131-149kt, similar to 2023 levels.
- **Morro Agudo:** Zinc production for the forecasted period is estimated to be between 17-21kt, as we do not anticipate an increase in ore availability for the forecasted period. As previously mentioned, we are revisiting the Bonsucesso project and Morro Agudo mine.

Smelting sales		2022	2023e			2024e			2025e		
Metal	**kt**	**616**	**580**	**-**	**605**	**580**	**-**	**605**	**580**	**-**	**605**
Zinc metal		576	545	-	565	545	-	565	545	-	565
Zinc oxide		40	35		40	35		40	35		40

For the forecasted periods, the smelters are expected to operate at normal levels and sales are expected to be similar to production levels. Metal sales volume at the midpoint of the guidance range in 2023 is estimated to decrease by 4% compared to 2022, as these estimates do not assume the resale of material from third parties. For 2024-2025, metal sales volume is estimated to remain stable over 2023.

2023 Cash Cost

Cash costs for 2023 are based on several assumptions, including but not limited to:

- Production volumes;
- Commodity prices (Zn: US$1.29/lb, Cu: US$3.54/lb, Pb: US$0.91/lb, Ag: US$20/oz, Au: US$1,700/oz);
- Foreign exchange rates (BRL/USD: 5.07 and Soles/USD: 3.94); and
- 2023 zinc treatment charges ("TCs") of US$285/t concentrate.

Mining operating costs	Cost ROM (US$/t) 2022	Cash Cost (US$/lb) 2022	Cost ROM (US$/t) 2023e			Cash Cost (US$/lb) 2023e		
Mining Cash Cost [1]	**44.4**	**0.28**	**43.9**	**-**	**46.4**	**0.49**	**-**	**0.54**
Cerro Lindo	40.3	(0.25)	40.1	-	42.1	0.11	-	0.13
El Porvenir	59.8	0.33	57.3	-	60.7	0.39	-	0.42
Atacocha	36.7	(0.71)	33.1	-	35.4	0.26	-	0.30
Vazante	47.6	0.56	57.2	-	59.0	0.68	-	0.74
Morro Agudo	42.6	0.98	35.0	-	38.2	1.02	-	1.18

[1]C1 Weighted Cash cost net of by-products credits is measured with respect to zinc sold per mine.

Mining: In 2023, consolidated run of mine mining costs at mid-range of the guidance are expected to increase 2% year-over-year, primarily driven by Vazante. Mining cash costs are expected to increase due to several reasons, as highlighted below.

In Peru, the unit cash cost of Cerro Lindo of US$0.11-0.13/lb in 2023 is expected to increase, affected by the estimated lower contribution of by-products credits, the decrease in zinc volumes and higher TCs, in addition to inflationary pressure on input costs.

El Porvenir cash cost of US$0.39-0.42/lb is expected to increase compared to 2022 driven by lower by-product credits and higher TCs, which should be partially offset by the expected increase in zinc volumes. Atacocha cash cost follows the same upward trend and is expected to be between US$0.26-0.30/lb.

In Brazil, the cash cost of Vazante is estimated to be between US$0.68-0.74/lb, negatively impacted by higher TCs and the expected increase in operating costs due to the scheduled trunnion maintenance in the period, energy prices and inflationary pressures on costs, which should be partially offset by higher zinc volumes. Morro Agudo cash cost follows a similar trend and is expected to be between US$1.02-1.18/lb, while run of mine mining cost is expected to decrease.

Smelting operating costs	Conversion Cost (US$/lb) 2022	Cash Cost (US$/lb) 2022	Conversion Cost (US$/lb) 2023e	Cash Cost (US$/lb) 2023e
Smelting Cash Cost [2]	**0.26**	**1.34**	**0.29 - 0.32**	**1.13 - 1.18**
Cajamarquilla	0.27	1.28	0.27 - 0.29	1.11 - 1.15
Três Marias	0.19	1.41	0.27 - 0.30	1.10 - 1.15
Juiz de Fora	0.37	1.41	0.45 - 0.49	1.27 - 1.37

[2]C1 Weighted Cash cost net of by-products credits is measured with respect to zinc sold per smelter.

Smelting: In 2023, conversion costs are expected to increase mainly driven by Brazil due to inflationary costs pressure and estimated higher energy costs. On the other hand, consolidated smelting cash costs in 2023 are expected to decrease year-over-year primarily due to an estimated decrease in zinc prices and higher TCs, which should be partially offset by lower by-product credits.

In Peru, the cash cost of Cajamarquilla of US$1.11-1.15/lb in 2023 is expected to decrease compared to 2022, following lower zinc prices and higher TCs. Conversion costs are expected to remain relatively stable compared to 2022 of US$0.27/lb.

In Brazil, Três Marias and Juiz de Fora smelters' cash costs are estimated to decrease to US$1.10-1.15/lb and US$1.27-1.37/lb, respectively, primarily driven by lower zinc prices and higher TCs, which should partially offset higher costs.

Note: Because of the ownership change in Enercan, one of the hydroelectric power plants that supplies electricity for our operations, Nexa began to recognize it as an equity interest in November 2022 rather than consolidate its pro-rata results. Although there will be no financial impact because expected dividends will be included in our Adjusted EBITDA, quarterly costs in Brazil will be affected. Refer to "Others | Enercan's deconsolidation" for further information.

2023 CAPEX

In 2023, CAPEX guidance is US$310 million. Sustaining investments are expected to total US$268 million, with smelting accounting for US$66 million and mining accounting for US$200 million, including US$53 million at Aripuanã.

In the mining segment, the majority of sustaining capital expenditures are US$79 million for underground mine development, US$54 million for tailings storage facility ("TSF"), and US$1.5 million for water management works.

In the smelting segment, the majority of sustaining capital expenditures are US$12 million for TSF, US$8 million for roaster maintenance, US$4 million for compliance with regulatory standards, and US$3 million for assets improvement.

Health, safety and environmental ("HSE") capital expenses are forecasted to be US$26 million.

CAPEX (US$ million)	2023 Guidance
Expansion projects [1]	**7**
Non Expansion	**303**
Sustaining [2]	268
HSE	26
Others [3]	10
TOTAL	**310**

[1] Includes Vazante deepening (US$4 million), among other several projects to improve operational performance.

[2] Investments in tailing dams are included in sustaining expenses. For further detail please refer to the Appendix.

[3] Modernization, IT and others.

2023 Exploration & Project Evaluation and Other Expenses

As part of our long-term strategy, we continued to maintain our efforts to replace and increase mineral reserves and resources. We expect in the future to continue advancing our exploration activities, primarily focusing on identifying new ore bodies and upgrading resources classification through infill drilling campaigns.

In 2023, we plan to invest US$55 million in exploration. Our mineral exploration expense guidance of US$33 million relates mainly to greenfield projects in the exploration phase (US$18 million) and brownfield projects (US$15 million), which are the exploration of orebody targets at our operations.

Our project evaluation expense guidance of US$55 million includes, approximately, US$20 million to extend the life of the disposal facility of Três Marias smelter. The remaining is for corporate IT, potential growth projects and various projects across our business units.

In addition, we expect to invest US$10 million to improve our current operations and US$15 million to continue contributing to the social and economic development of our host communities.

Other operating expenses (US$ million)	**2023 Guidance**
Exploration	**55**
Mineral exploration	33
Mineral rights	7
Sustaining (mine development)	15
Project Evaluation	**55**
Três Marias Project	20
Exploration & Project Evaluation	**110**
Other	**25**
Technology	10
Communities	15

Note: Exploration and project evaluation expenses consider several stages of development, from mineral potential definition, R&D, and subsequent scoping and pre-feasibility studies (FEL1 and FEL2).

Earnings Release – 4Q22 and 2022

This Earnings Release should be read in conjunction with the audited consolidated financial statements at and for the financial year ended December 31, 2022 (the "2022 Consolidated Financial Statements"). This document contains forward-looking statements.

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Aripuanã project

Ramp-up activities have continued to progress and are currently focused on steadily increasing the plant throughput rate, increasing asset reliability, and concentrate grades. We closed 4Q22 with plant throughput reaching 53% of nameplate capacity, behind our initial plan due to heavy rainfall levels in the period, which required additional operating stoppages at our filters, and also caused energy supply outages.

The ramp-up continues with the plant achieving over 60% capacity utilization rate at the beginning of February. In 4Q22, we started to sell concentrates within market specifications, and we have achieved our first revenues, with an increase in sales planned for 1Q23. We expect to reach nameplate capacity in 2H23.

We continue with mine development activities in both the Arex and Link mines. At the end of 2022, approximately 600kt of ore was available in stockpiles (versus 646kt in 3Q22), which is enough to cover 4.5 months of plant production in the ramp-up period.

Horizontal mine development reached an accumulated amount of 26,003 meters developed for both the Arex and Link mines at the end of December 2022, compared to 23,490 meters at the end of September 2022.

As mentioned in 3Q22, the mine is already fully operational, and underground activities are focused on developing and preparing new areas for mining operations. We plan to ramp-up the ore run of mine in 2023 following the plant ramp-up. Development is also supporting the continued potential to increase mineral reserves with drilling in new areas.

The commissioning of the paste fill circuit was completed, the first tests of mine filling started in January and are expected to be concluded in February 2023.

In 4Q22, we invested US$3 million in expansion CAPEX, totaling US$66 million in 2022, including the negative FX impact of US$5.5 million in 2022. The cumulative expansion CAPEX of the project since the beginning of construction was US$632 million. Note that in accordance with our most recent technical report, there are some investments to be made in sustaining infrastructure in the first year of operation, which were included in 2022 (US$46 million) and are also included in our 2023 CAPEX guidance.

Current operations headcount is 577 employees working for the mine, plant, maintenance, process, environment, safety and health, and administrative activities of the operation. Of these employees, 27% are women.

In Aripuanã, we have a qualification program in place for future mine and plant operating professionals. In 2022, we had 334 candidates enrolled, of which approximately 158 received professional qualifications on maintenance and automation and geology and surveying and there are still 58 in active classes. The company hired 66% (142 people) people who attended the qualification program, of which 66% (94) are men and 34% (48) are women.

Following the updated definition of Adjusted EBITDA, Nexa pre-operating expenses and ramp-up impacts of Aripuanã, including non-cash net realizable value write-downs of concentrates and ore stockpiles inventories, were excluded as these items do not reflect the Company's normal operating activities. For comparative purposes, the related 2021 amounts have also been adjusted.

Aripuanã costs and revenues recorded in 4Q22 and costs since commencement of revenues are included in the calculation of Adjusted EBITDA and will be included going forward, though there are still not at normal levels. As Aripuanã continues its ramp-up activities, Nexa may experience additional ramp-up impacts, including additional non-cash inventories net realizable write-downs in 2023.

First shipment of concentrate from Aripuanã

First shipment of concentrate from Aripuanã

Arrival of the first load of Zinc concentrate in Três Marias

Arrival of the first load of Zinc concentrate in Juiz de Fora

First production of Juiz de Fora containing material from Aripuanã

First ingots produced in Juiz de Fora containing material from Aripuanã

Consolidated performance

Selected financial information

US$ million (excepted indicated otherwise)	4Q22	3Q22	4Q21	2022	2021
Net Revenue	**780**	**703**	**678**	**3,034**	**2,622**
Mining	315	241	323	1,248	1,166
Smelting	606	616	511	2,467	2,022
Intersegment results | Adjustments	(142)	(154)	(157)	(681)	(565)
Cost of Sales	**(696)**	**(618)**	**(584)**	**(2,395)**	**(1,989)**
Mining	(303)	(193)	(191)	(905)	(727)
Current Operations	(228)	(193)	(191)	(830)	(727)
Aripuanã	(75)	0	0	(75)	0
Smelting	(543)	(579)	(553)	(2,191)	(1,843)
Intersegment results | Adjustments	150	154	160	701	580
Selling, general and administrative	**(41)**	**(32)**	**(40)**	**(146)**	**(134)**
Mining	(15)	(17)	(20)	(64)	(65)
Smelting	(16)	(14)	(15)	(60)	(52)
Intersegment results | Adjustments	(10)	0	(5)	(21)	(17)
Depreciation and amortization	**78**	**73**	**69**	**291**	**259**
Mining	59	49	48	205	175
Smelting	18	20	18	79	79
Intersegment results | Adjustments	1	4	2	8	5
Adjusted EBITDA (1)(2)	**120**	**121**	**153**	**760**	**744**
Mining	78	64	122	440	477
Smelting	46	58	32	326	271
Intersegment results | Adjustments	(4)	(1)	(0)	(6)	(4)
Adj. EBITDA margin (%)	*15.4%*	*17.2%*	*22.6%*	*25.1%*	*28.4%*
Adjusted Net income (loss) (2)	**3**	**(30)**	**28**	**187**	**195**
Attributable to Nexa's shareholders	(6)	(32)	14	151	147
Attributable to non-controlling interests	9	2	14	35	48
Adjusted Basic and diluted EPS	**(0.04)**	**(0.24)**	**0.11**	**1.14**	**1.11**
Cash provided by operating activities (3)	**141**	**70**	**158**	**499**	**661**
Free cash flows (2)	**(20)**	**(87)**	**(42)**	**(246)**	**(342)**
CAPEX	**116**	**85**	**164**	**381**	**508**
Liquidity and Indebtedness					
Total cash (4)	516	538	763	516	763
Net debt (2)	1,161	1,115	962	1,161	962
Net debt / LTM Adj. EBITDA (x)	1.53	1.41	1.29	1.53	1.29

(1) Includes non-recurring expenses relating to the Nexa Way program in 1H21.

(2) Refer to "Use of Non-IFRS Financial Measures" for further information. During December 2022, the Company revised its Adjusted EBITDA definition and decided to exclude certain items to provide a better understanding of its operational and financial performance. Adjusted EBITDA, adjusted net income (loss) and adjusted EPS, excludes the items presented in the Adjusted EBITDA reconciliation on pages 20 and 58 of this earnings release. 2021 and 2022 previous numbers have been reclassified according to the updated definition. For details on segment definition and accounting policy, please refer to explanatory note 2 – "Information by business segment" in the "Consolidated financial statements at December 31, 2022".

(3) Working capital in 4Q22 had a negative impact of US$0.5 million, totaling negative US$203 million in 2022. Working capital in 4Q21 had a positive impact of US$4.5 million, totaling negative US$38 million in 2021.

(4) Cash, cash equivalents and financial investments.

Net revenues

In 4Q22, net revenues were US$780 million, 15% higher year-over-year, primarily due to the increase in metal sales, partially offset by lower LME metal prices across all metals. The LME average price for zinc, copper, and lead were down by 11%, 18% and, 10%, respectively, compared to the same period in 2021 – for more information, refer to the "Market Scenario" section.

Compared to 3Q22, net revenues increased by 11% due to the higher revenues from the mining segment.

In 2022, net revenues of US$3,034 million increased by 16% compared to 2021, primarily driven by higher LME zinc prices. During the period, the LME average zinc price increased by 16%, while copper and lead prices decreased by 6% and 3%, respectively, compared to 2021. Higher sales volume of copper, lead, and silver also positively affected the year-over-year performance.

Cost of sales

In 4Q22, cost of sales amounted to US$696 million, up 19% year-over-year. The cost increase was explained by the mining segment mainly due to higher sales expenses in Aripuanã related to sales of concentrates with higher unit costs. Compared to 3Q22, cost of sales increased by 13% due to increased maintenance and Aripuanã.

During 2022, cost of sales increased by 20% compared to 2021, mainly driven by higher zinc prices, affecting the raw material cost of our smelters; (ii) the negative impact of the Brazilian real against the U.S. dollar; (iii) higher operational costs; and (iv) Aripuanã.

Mineral exploration and project evaluation

In 4Q22, mineral exploration and project evaluation investments were US$23 million. In 2022, mineral exploration and project evaluation investment amounted to US$87 million.

In the quarter, 26km of exploratory drilling was drilled in Peru, Brazil, and in Namibia, through our joint venture with the Japan, Oil, Gas and Metals National Corporation ("JOGMEC"). By the end of the fourth quarter, cumulative production drilling achieved 259km with 117km of exploratory drilling (including the Ambrex infill at Aripuanã) and 143km of operational infill drilling. In 2022, we executed 95% of the planned activities, with outstanding results in our brownfield program at Aripuanã with the Ambrex infill drilling program confirming thick and high-grade mineralization, which should support the conversion of Inferred to Indicated Mineral Resources.

Brownfield exploration programs have progressed as expected and exploration activities continued to focus on the expansion of our exploration portfolio and potentially increasing life of mine in our mining operations. Exploratory drilling planned for the first quarter 2023 includes 7.9km in Peru with 11 rigs and 8.3km in Brazil with 9 rigs, totaling 16km. For additional information, please refer to our 4Q22 and 2022 Exploration Report published on February 13, 2023.

COVID-19 expenses

Protocols to mitigate the spread of COVID-19 were implemented during 2020 in all our operations and remain in place. We continue working on three main fronts: Health, Safety and People; Business Continuity; and Stakeholders.

In 4Q22, COVID-19 related costs totaled US$0.6 million (US$0.5 million in mining) and are included in the cost of sales and in operating expenses. In 2022, COVID-19 expenses amounted US$6.0 million.

SG&A

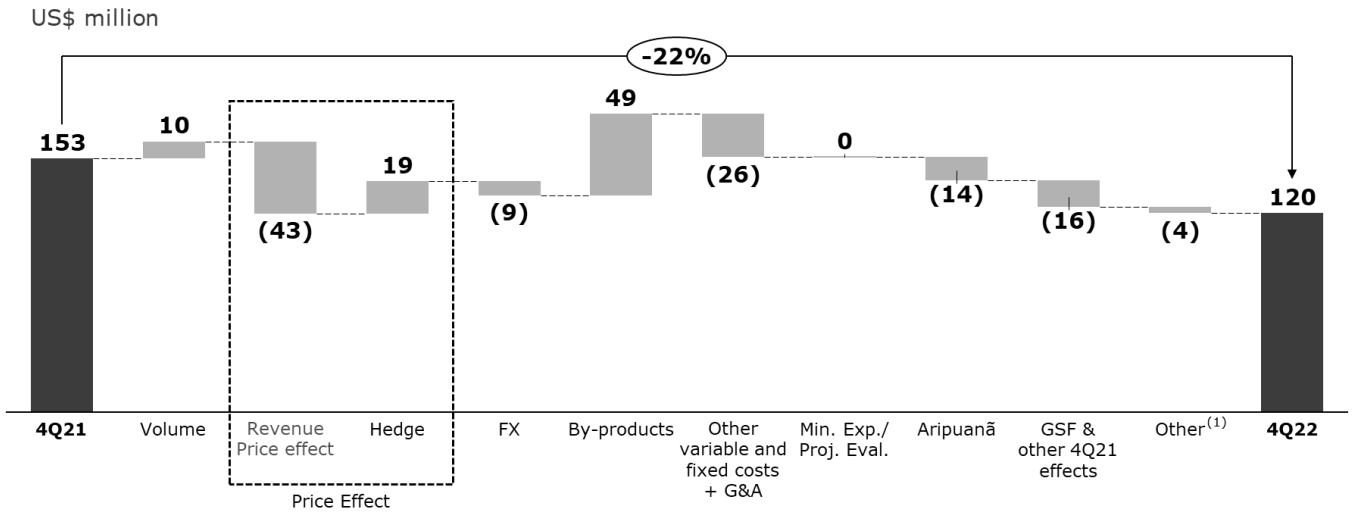
In 4Q22, SG&A expenses increased to US$41 million compared US$40 million in 4Q21 and US$32 million in 3Q22, mainly driven by higher employee benefit expenses provision due to improved results and the increase in commercial and logistic expenses following the increase in sales. As a percentage of net revenues, SG&A expenses stood at 5% (down 1pp from 4Q21 and up 1pp compared to 3Q22).

In 2022, SG&A expenses amounted to US$146 million, up 9% from the same period of 2021.

Adjusted EBITDA

In December 2022, Nexa revised its Adjusted EBITDA definition to exclude certain items to provide a better understanding of its operational and financial performance. In the case of Aripuanã, costs were excluded from the Adjusted EBITDA until the unit started to generate revenues, which happened at the end of 4Q22. Prior period comparatives have also been adjusted based on the updated definition.

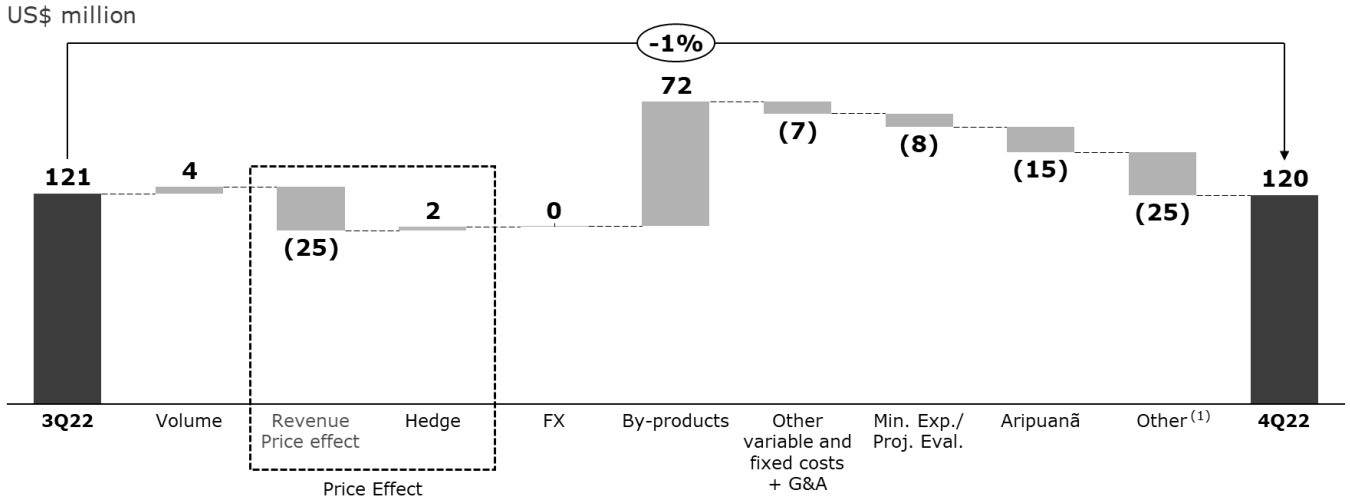
In 4Q22, Adjusted EBITDA was US$120 million compared with US$153 million in the same prior year period. The main factors that contributed to this performance were (i) the negative price effect of US$24 million due to lower LME zinc prices and changes in market prices that result in mark-to-market ("MTM") adjustments, partially offset by the positive hedge variation, which had a negative impact in 4Q21; (ii) higher operating costs with a negative impact of US$26 million; and (iii) the increase in other income and expenses mainly driven by a non-cash impact of US$6 million related to our annual environmental accretion (costs related to rehabilitation of areas); partially offset by higher by-products contribution of US$49 million in both mining and smelting segments. Aripuanã results had a negative impact of US$14 million.



(1) Includes: Other income and expenses

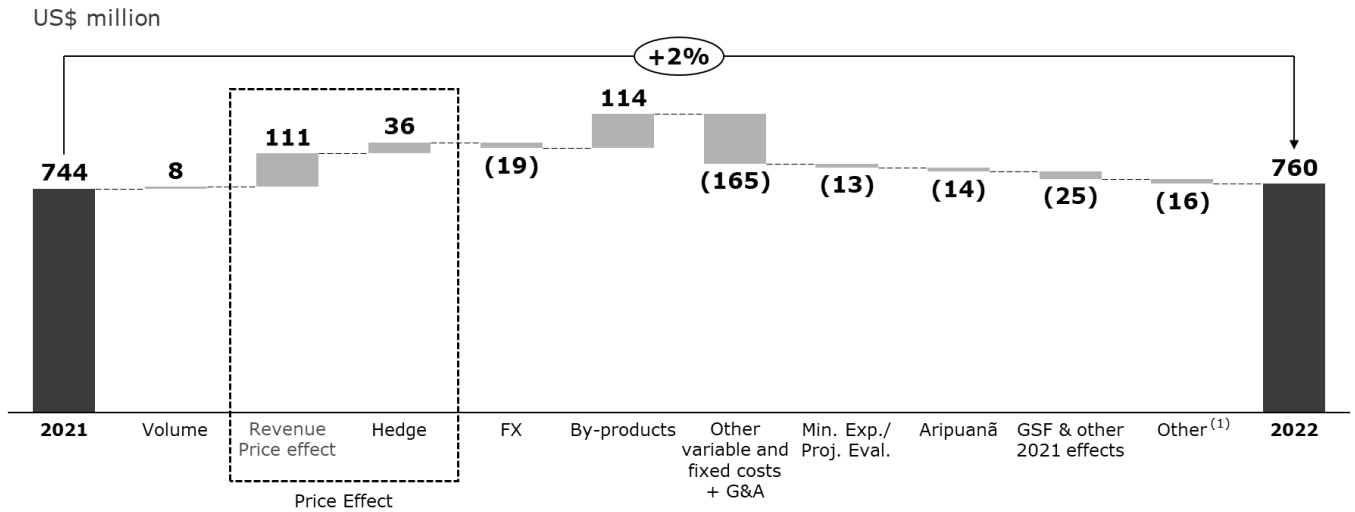
Compared to 3Q22, Adjusted EBITDA decreased by 1%. The positive by-product contribution of US$72 million due to higher prices and volumes was offset by (i) the negative price effect of US$25 million driven by lower LME zinc prices; (ii) the non-cash impact of US$14 million in other income and

expenses related to our annual environmental accretion update and an increase in provision. Aripuanã results had a negative impact of US$15 million.



(1) Includes: Other income and expenses

During 2022, Adjusted EBITDA was a record of US$760 million compared with US$744 million in the same period a year ago. The main factors that contributed to this performance were (i) higher zinc LME prices and changes in market prices that resulted in MTM adjustment; and (ii) higher by-products contribution; partially offset by (iii) higher operational costs, such as third-party services, energy, royalties, and increased in maintenance costs; and (iv) the increase in other income and operating costs and Aripuanã results, as explained above.



(1) Includes: Other income and expenses

Adjusted EBITDA reconciliation to net income

US$ million	4Q22	3Q22	4Q21	2022	2021
Adjusted EBITDA (1)	**120.2**	**121.1**	**153.2**	**760.3**	**743.8**
Fair value of offtake agreement (2)	7.7	7.8	0.0	24.3	0.0
Impairment loss of long-lived assets	(32.8)	0.3	0.0	(32.5)	0.0
Aripuanã pre-operating expenses and ramp-up impacts	(46.8)	(12.1)	(4.0)	(87.5)	(8.8)

US$ million	4Q22	3Q22	4Q21	2022	2021
Impairment of other assets	(9.3)	0.0	0.0	(9.3)	0.0
Loss on sale of property, plant and equipment	(0.2)	(0.6)	(4.9)	(0.7)	(4.9)
Remeasurement in estimates of asset retirement obligations	(3.0)	5.5	(8.2)	6.2	(6.4)
Remeasurement adjustment of streaming agreement	0.0	(10.6)	0.0	(10.6)	(19.6)
Other Adjustments	0.0	0.0	0.3	0.0	0.7
EBITDA	**35.8**	**111.4**	**136.5**	**650.2**	**704.9**
Depreciation, amortization and depletion	(77.9)	(72.8)	(68.9)	(290.9)	(258.7)
Share in the results of associates	1.9	0.0	0.0	1.9	0.0
Net financial results	(17.9)	(52.3)	(38.4)	(133.7)	(136.9)
Taxes on income	(23.3)	(26.2)	(17.8)	(151.0)	(153.2)
Net Income (loss)	**(81.4)**	**(39.9)**	**11.4**	**76.4**	**156.1**

(1) The Company revised its Adjusted EBITDA definition to exclude certain items to provide a better understanding of its operational and financial performance. Adjusted EBITDA excludes the items presented above in the Adjusted EBITDA reconciliation and on page 58 of this earnings release. 2021 and 2022 previous numbers have been reclassified according to the updated definition. For details on segment definition and accounting policy, please refer to explanatory note 2 – "Information by business segment" in the "Consolidated financial statements at December 31, 2022".

(2) Refers to the fair value of the financial instrument related to the "Offtake agreement" described on page 47 of this earnings release. Since this instrument's value is a non-cash item and includes the value of production not yet sold it is adjusted from the EBITDA to derive Adjusted EBITDA.

Net financial results

The net financial results in 4Q22 were an expense of US$18 million compared to US$52 million expense in 3Q22 mainly driven by the positive effect of the foreign exchange variation.

The foreign exchange variation had a positive impact of US$20 million versus a negative impact of US$16 million in 3Q22, mainly explained by the 6% appreciation of the Brazilian real against the U.S. dollar[4] versus the 3% depreciation in the previous quarter.

Excluding the effect of the foreign exchange variation, the net financial results in 4Q22 were an expense of US$38 million compared to an expense of US$36 million in the previous quarter.

US$ thousand	4Q22	3Q22	4Q21
Financial income	**6,174**	**6,701**	**4,043**
Financial expenses	**(43,395)**	**(41,571)**	**(35,184)**
Other financial items, net	**19,368**	**(17,423)**	**(7,276)**
Foreign exchange gain (loss)	19,773	(16,076)	(7,207)
Net financial result	**(17,853)**	**(52,293)**	**(38,417)**
Net financial result excluding FX	**(37,626)**	**(36,217)**	**(31,210)**

[4] On December 31, 2022, the Brazilian real / U.S. dollar exchange rate at the end of period was R$5.217/US$1.00 compared to R$5.406/US$1.00 on September 30, 2022.

Net income (loss)

Net loss was US$81 million in 4Q22 compared to net income of US$11 million in 4Q21 and net loss of US$40 million in 3Q22. In 2022, net income was US$76 million compared to net income of US$156 million in the same period a year ago.

Excluding the items presented above in the Adjusted EBITDA reconciliation to net income, adjusted net income was US$3 million in the quarter. The increase in operating income was partially offset by the negative financial results. In 2022, adjusted net income was US$187 million.

Adjusted net loss attributable to Nexa's shareholders was US$6 million in 4Q22, with an adjusted net income attributable to Nexa's shareholders of US$151 million in 2022, resulting in adjusted losses per share of US$0.04 and adjusted EPS of US$1.14, respectively.

Business Performance

Mining segment

Mining production

Consolidated		4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
Ore Mined	kt	3,173	3,029	3,054	3.9%	12,073	12,548	(3.8%)
Treated Ore	kt	3,281	3,135	3,117	5.3%	12,343	12,330	0.1%
Grade								
Zinc	%	2.68	2.78	2.99	(31 bps)	2.78	2.98	(20 bps)
Copper	%	0.35	0.30	0.29	6 bps	0.34	0.31	3 bps
Lead	%	0.63	0.62	0.56	7 bps	0.62	0.51	10 bps
Silver	oz/t	1.02	1.08	0.98	4.5%	1.07	0.95	11.8%
Gold	oz/t	0.005	0.005	0.005	(1.5%)	0.005	0.005	9.5%
Production | metal contained								
Zinc	kt	74.9	76.0	81.1	(7.7%)	296.4	319.9	(7.4%)
Copper	kt	9.3	7.4	7.0	32.8%	33.2	29.6	12.2%
Lead	kt	15.7	15.3	12.7	23.0%	57.4	45.6	26.1%
Silver	MMoz	2.6	2.6	2.3	10.4%	10.0	8.8	13.2%
Gold	koz	6.9	7.1	8.2	(15.8%)	27.2	25.5	6.7%
Zn Equivalent (1)	kt	128.0	125.2	125.9	1.7%	495.7	495.3	0.1%

Note: Until 3Q22 the reference price used for conversion was 2021 average benchmark prices. All numbers were updated to reflect the 2022 average benchmark price.

(1) Consolidated mining production in kt of zinc equivalent is calculated by converting copper, lead, silver and gold contents to a zinc equivalent grade, assuming 2022 LME average benchmark prices: Zn: US$1.58/lb; Cu: US$3.99/lb; Pb: US$0.98/lb; Ag: US$21.7/oz; Au: US$1,800/oz.

In 4Q22, treated ore volume was 3,281kt, up 5% compared to 4Q21 and 3Q22, mainly supported by the Peruvian mines in both periods. The ore throughput, year-over-year, increased at Cerro Lindo (+1%), El Porvenir (+3%), and Atacocha (+5%). Compared to 3Q22, Cerro Lindo slightly decreased by 0.3%, while El Porvenir and Atacocha increased by 4% and 16%, respectively.

In Brazil, treated ore volume was 649kt in 4Q22, up 1% from 4Q21 and down 4% from 3Q22.

Zinc equivalent production totaled 128kt in 4Q22, up 2% compared to 4Q21. The average zinc head grade decreased by 31bps to 2.68%, while copper, lead, and silver head grades increased by 6bps to 0.35%, 7bps to 0.63%, and 5% to 1.02oz/t, respectively. Compared to 3Q22, zinc equivalent production increased by 2%.

Zinc production of 75kt in the quarter decreased by 8% from 4Q21, mainly explained by lower head zinc average grade. Compared to 3Q22, zinc production followed the same trend and decreased by 2%.

Copper production of 9kt increased by 33% and 25% from 4Q21 and 3Q22, respectively, as a result of high mining recovery in areas with higher average head grades.

Lead production followed the same trend and increased 23% year-over-year and 3% quarter-over-quarter.

In 2022, treated ore volume totaled 12,343kt, up year-over-year. Lower ore throughput in Cerro Lindo and Vazante mines was offset by the improved performance in El Porvenir, Atacocha, and Morro Agudo mines, and the startup of Aripuanã. Zinc average grade was down 20bps to 2.78%. Therefore, zinc production totaled 296kt, 7% lower than in 2021. On the other hand, lead and copper production increased by 26% and 12% to 57kt and 33kt, respectively, as a result of higher average grades.

Cerro Lindo

Cerro Lindo (100% basis)		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**4Q21**	**3Q21**	**2Q21**	**1Q21**	**2021**
Ore Mined	kt	**1,581**	1,558	1,698	1,425	6,262	1,563	1,537	1,672	1,595	6,367
Treated Ore	kt	**1,589**	1,594	1,661	1,392	6,236	1,567	1,558	1,645	1,599	6,369
Grade											
Zinc	%	**1.49**	1.42	1.58	1.71	1.55	1.76	1.68	1.94	1.79	1.79
Copper	%	**0.65**	0.55	0.66	0.57	0.61	0.52	0.58	0.48	0.57	0.54
Lead	%	**0.28**	0.37	0.35	0.34	0.33	0.28	0.23	0.31	0.28	0.28
Silver	oz/t	**0.70**	0.94	0.99	0.92	0.89	0.79	0.74	0.83	0.80	0.79
Gold	oz/t	**0.003**	0.002	0.003	0.003	0.002	0.002	0.003	0.002	0.003	0.002
Production | metal contained											
Zinc	kt	**20.7**	19.9	22.7	21.1	84.4	24.7	23.2	29.1	25.3	102.3
Copper	kt	**9.1**	7.4	9.5	6.8	32.8	6.9	7.7	6.7	7.9	29.1
Lead	kt	**3.2**	4.7	4.4	3.4	15.6	3.2	2.5	3.8	3.3	12.8
Silver	MMoz	**0.8**	1.1	1.2	1.0	4.1	0.9	0.9	1.1	0.9	3.8
Gold	koz	**0.9**	1.0	1.1	1.1	4.1	1.1	1.1	1.4	1.2	4.8
Zinc sales	kt	**19.9**	19.7	22.9	23.4	85.9	24.7	23.2	30.7	25.3	103.8
Costs											
Cost of sales	US$ mm	**99.0**	94.6	105.9	97.0	396.5	97.4	94.6	95.4	89.5	376.9
Cost ROM (2)	US$/t	**42.2**	40.1	38.2	41.0	40.3	39.3	38.7	37.0	36.8	37.9
Cash cost (1) net of by-products	US$/lb	**(0.38)**	0.37	(0.59)	(0.34)	(0.25)	(0.18)	(0.24)	(0.29)	(0.23)	(0.24)
Sustaining cost (1) net of by-products	US$/lb	**(0.04)**	0.59	(0.39)	(0.19)	(0.03)	0.13	(0.04)	(0.16)	(0.15)	(0.06)
CAPEX	US$ mm										
Sustaining		**12.8**	8.6	9.4	7.3	38.1	15.2	9.2	7.8	4.4	36.6
Other		**2.1**	1.0	0.8	0.5	4.3	1.9	0.9	1.1	0.0	3.9

(1) Our cash cost and sustaining cost net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix – All in Sustaining Cash Cost | Mining.

(2) Our cost per ROM is measured with respect to treated ore volume. Refer to "Use of Non-IFRS Financial Measures" for further information.

Zinc production of 21kt decreased by 16% year-over-year, mainly explained by the expected lower zinc average grade (down 26bps to 1.49%), following the mine sequence plan. Additionally, increased ROM production in volcanic mineralized areas continues to be a challenge for the plant process. Compared to 3Q22, zinc production increased by 4%, as a result of mining development focused on increasing flexibility in high grade areas, which showed higher zinc grades (up by 7bps).

Copper production of 9kt increased by 32% and 23% compared to 4Q21 and 3Q22, respectively, due to the development of areas with higher grades during the period. Copper average grade was 0.65%, up 14bps from 4Q21 and 11bps from 3Q22.

Lead production was 3.2kt, relatively flat compared to 4Q21 and decreased by 33% (or 1.5kt) compared to 3Q22, mainly driven by lower lead average grade (down 9bps to 0.28%), following mine plan.

During 2022, zinc production totaled 84kt, down 17% compared to the same period last year due to expected lower treated ore volume and lower zinc average grade. Copper and lead production were up 13% and 22%, to 33kt and 15.6kt, respectively, following higher average grades.

Cost

Cost of sales of US$99 million in 4Q22 was 2% higher compared to 4Q21. Compared to 3Q22, cost of sales increased by 5% mainly driven by higher operational costs due to increased mining development in the period.

Run of mine mining cost was US$42/t in the quarter, up 7% and 5% from 4Q21 and 3Q22, respectively, mainly explained by higher operational costs.

Cash cost net of by-products in 4Q22 decreased to US$(0.38)/lb compared with US$(0.18)/lb in 4Q21 and US$0.37/lb in 3Q22. In both periods, this decrease was mainly driven by higher by-products contribution.

In 4Q22, sustaining cost net of by-products was lower than in the same quarter last year and 3Q22 as a result of lower cash cost.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$12.8 million, mainly related to mining development, heavy mobile equipment replacement, flotation automation project and infrastructure to increase power distribution capacity onsite, totaling US$38.1 million in 2022.

Outlook

For the upcoming quarter, treated ore volume is expected to reduce due to the continuity of stopes production in volcanic mineralized zones and zinc production is expected to follow the same trend. Copper is expected to be slightly higher, while lead production should be lower.

El Porvenir

El Porvenir (100% basis)		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**4Q21**	**3Q21**	**2Q21**	**1Q21**	**2021**
Ore Mined	kt	**551**	529	520	513	2,114	533	527	517	502	2,079
Treated Ore	kt	**550**	527	521	514	2,112	533	527	516	502	2,078
Grade											
Zinc	%	**2.61**	2.77	2.86	2.96	2.80	2.89	3.07	2.73	2.64	2.83
Copper	%	**0.13**	0.16	0.17	0.18	0.16	0.20	0.20	0.19	0.16	0.19
Lead	%	**1.38**	1.34	1.34	1.31	1.34	1.21	1.18	0.92	1.01	1.08

El Porvenir (100% basis)		4Q22	3Q22	2Q22	1Q22	2022	4Q21	3Q21	2Q21	1Q21	2021
Silver	oz/t	**2.64**	2.45	2.35	2.41	2.46	2.24	2.22	1.83	2.11	2.10
Gold	oz/t	**0.012**	0.011	0.011	0.013	0.012	0.012	0.011	0.010	0.012	0.011
Production | metal contained											
Zinc	kt	**12.6**	12.7	13.0	13.2	51.6	13.4	14.1	12.3	11.6	51.4
Copper	kt	**0.0**	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.5
Lead	kt	**6.3**	5.8	5.7	5.4	23.2	5.1	4.9	3.7	4.0	17.7
Silver	MMoz	**1.2**	1.0	1.0	1.0	4.2	0.9	0.9	0.7	0.9	3.5
Gold	koz	**2.5**	2.4	2.1	2.2	9.2	2.3	2.3	1.9	2.2	8.7
Zinc sales	kt	**12.1**	12.4	14.0	13.5	52.0	13.4	14.1	12.8	11.1	51.4
Costs											
Cost of sales	US$ mm	**39.2**	40.1	45.6	42.9	167.9	40.0	36.5	37.6	33.6	147.7
Cost ROM (2)	US$/t	**58.6**	58.5	60.1	62.1	59.8	61.3	56.5	57.0	55.2	57.5
Cash cost (1) net of by-products	US$/lb	**(0.00)**	0.63	0.31	0.37	0.33	0.15	0.37	0.42	0.61	0.38
Sustaining cost (1) net of by-products	US$/lb	**0.63**	0.98	0.48	0.54	0.65	0.54	0.62	0.72	0.98	0.70
CAPEX	US$ mm										
Sustaining		**16.6**	9.4	5.1	4.7	35.7	10.2	6.0	8.1	8.6	32.9
Other		**0.3**	0.1	0.2	0.4	1.0	1.2	1.8	0.2	0.5	3.7

(1) Our cash cost and AISC net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix – All in Sustaining Cash Cost | Mining.

(2) Our cost per ROM is measured with respect to treated ore volume. Refer to "Use of Non-IFRS Financial Measures" for further information.

In 4Q22, zinc production of 13kt was down 6% and 1% from 4Q21 and 3Q22, respectively. Zinc grade decreased to 2.61% in the quarter as production focused on areas with higher lead and silver grades, while ramp-up has continued in sub-level stoping areas.

Lead and silver production in 4Q22 increased by 24% and 26% from the same period a year ago, as a result of higher grades. Compared to 3Q22, lead and silver production followed the same trend and increased by 9% and 15%, respectively.

In 2022, treated ore volume totaled 2,112kt, up 2% from last year. Zinc, lead, and silver average grades increased to 2.80%, 1.34%, and 2.46oz/t. As a result, production for these metals increased by 0.4%, 31%, and 21%, respectively.

Cost

Cost of sales was US$39 million in 4Q22 compared to US$40 million in both 4Q21 and 3Q22.

Run of mine mining cost was US$59/t in the quarter, down 4% from 4Q21, mainly explained by higher treated ore volume. Compared to 3Q22, it was relatively stable.

Cash cost net of by-products in 4Q22 decreased by US$0.15/lb compared to 4Q21 mainly driven by higher by-products credits of US$(0.47)/lb, which was partially offset by the decrease in zinc volume with a negative impact of US$0.34/lb. Compared to 3Q22, cash cost also decreased due to higher by-products credits with a positive impact of US$0.65/lb.

In 4Q22, sustaining cost net of by-products was higher than in the same quarter last year due to higher investments in the period. Compared with 3Q22, sustaining cash cost decreased as a result of lower cash cost.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$16.6 million, mainly related to mine development, tailing dam project, and heavy mobile equipment replacement, totaling US$35.7 million in 2022.

Outlook

For 1Q23, treated ore volume and metals production are expected to maintain similar levels of 4Q22, mainly explained by plant stability.

Atacocha

Atacocha (100% basis)		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**4Q21**	**3Q21**	**2Q21**	**1Q21**	**2021**
Ore Mined	kt	**394**	339	325	296	1,354	376	338	372	185	1,271
Treated Ore	kt	**394**	339	325	296	1,354	376	338	372	185	1,271
Grade											
Zinc	%	**0.87**	0.90	0.82	1.00	0.89	0.91	0.95	0.77	0.90	0.88
Lead	%	**1.20**	0.96	0.83	0.82	0.97	0.80	0.79	0.83	0.91	0.82
Silver	oz/t	**1.26**	0.99	0.99	0.94	1.05	0.96	0.99	1.05	1.07	1.01
Gold	oz/t	**0.013**	0.016	0.015	0.015	0.015	0.017	0.013	0.011	0.012	0.014
Production | metal contained											
Zinc	kt	**2.6**	2.4	2.1	2.4	9.6	2.8	2.5	2.1	1.2	8.5
Lead	kt	**4.1**	2.8	2.3	2.1	11.2	2.6	2.2	2.6	1.4	8.7
Silver	MMoz	**0.4**	0.3	0.3	0.2	1.2	0.3	0.3	0.3	0.2	1.0
Gold	koz	**3.1**	3.8	3.6	3.1	13.6	4.7	3.1	2.8	1.4	11.9
Zinc sales	kt	**2.9**	2.3	2.3	2.1	9.6	2.8	2.5	1.5	1.0	7.7
Costs											
Cost of sales	US$ mm	**23.3**	15.7	21.1	15.3	75.4	12.3	14.4	12.2	11.1	50.0
Cost ROM (2)	US$/t	**35.7**	37.7	35.5	38.0	36.7	32.5	33.7	29.1	32.4	31.8
Cash cost (1) net of by-products	US$/lb	**(1.54)**	0.54	(1.28)	(0.30)	(0.71)	0.39	(0.25)	(0.67)	(1.40)	(0.25)
Sustaining cost (1) net of by-products	US$/lb	**(1.36)**	0.64	(1.14)	0.14	(0.50)	0.81	0.21	0.70	(0.53)	0.42
CAPEX	US$ mm										
Sustaining		**1.1**	0.5	0.8	2.0	4.4	2.4	2.4	4.4	2.0	11.1

Atacocha (100% basis)	4Q22	3Q22	2Q22	1Q22	2022	4Q21	3Q21	2Q21	1Q21	2021
Other	**0.1**	0.0	(0.0)	0.0	0.1	0.1	0.2	0.2	(0.1)	0.4

(1) Our cash cost and sustaining cost net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix - All in Sustaining Cash Cost | Mining.

(2) Our cost per ROM is measured with respect to treated ore volume. Refer to "Use of Non-IFRS Financial Measures" for further information.

Treated ore volume of 394kt in 4Q22 was up 5% from 4Q21. Compared to 3Q22, treated ore volume increased by 16%, mainly explained by the high plant performance after the resumption of activities that were previously impacted by protests.

Zinc production of 2.6kt in 4Q22 decreased by 5% compared to 4Q21 and increased by 9% compared to 3Q22. Zinc average grade was 0.87%, down 5bps year-over-year and 3bps quarter-over-quarter.

Lead production increased by 58% to 4.1kt compared to 4Q21, while silver production increased by 40% to 406koz. Compared to 3Q22, lead and silver production increased by 45% and 53%, respectively.

In 2022, treated ore volume totaled 1,354kt, up 6% from last year. As a result, zinc production increased to 10kt (+12%), also positively affected by higher grades. Lead and silver followed the same trend and increased to 11kt (+29%) and 1,155koz (+12%), respectively.

Cost

Cost of sales was US$23 million in 4Q22 compared to US$12 million in the same period last year due to higher inventory cost and the increase in treated ore volume. Compared to 3Q22, cost of sales increased by US$8 million, mainly explained by the same reasons.

Run of mine mining cost was US$36/t in the quarter, up 10% year-over-year due to higher volume and transportation of the mining waste pile, and down 5% quarter-over-quarter, mainly explained by production stability after the resumption of operations.

Cash cost net of by-products was US$(1.54)/lb in 4Q22 compared with US$0.39/lb in 4Q21 and US$0.54/lb in 3Q22. In both periods, this decrease in cash cost was mainly driven by higher by-products contribution.

In 4Q22, sustaining cost net of by-products decreased to US$(1.36)/lb following lower cash cost.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$1.1 million, mainly driven by the tailings dam elevation, totaling US$4.4 million in 2022.

Outlook

For the next quarter, zinc production and other metals are expected to slightly decrease due to the protest activities in January 2023.

Vazante

Vazante (100% basis)		4Q22	3Q22	2Q22	1Q22	2022	4Q21	3Q21	2Q21	1Q21	2021
Ore Mined	kt	**372**	376	381	264	1,393	378	396	390	378	1,542
Treated Ore	kt	**395**	416	408	305	1,525	403	414	406	408	1,631
Grade											
Zinc	%	**9.87**	10.06	10.29	9.57	9.97	10.31	10.18	9.65	9.76	9.98
Lead	%	**0.36**	0.31	0.32	0.35	0.33	0.36	0.34	0.35	0.33	0.35

Vazante (100% basis)		4Q22	3Q22	2Q22	1Q22	2022	4Q21	3Q21	2Q21	1Q21	2021
Silver	oz/t	**0.63**	0.62	0.65	0.61	0.63	0.66	0.71	0.63	0.70	0.67
Production | metal contained											
Zinc	kt	**33.7**	36.4	36.5	24.9	131.5	35.6	36.5	33.7	34.8	140.5
Lead	kt	**0.4**	0.3	0.3	0.2	1.2	0.4	0.4	0.5	0.4	1.6
Silver	MMoz	**0.1**	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.5
Zinc sales	kt	**33.7**	36.4	36.5	24.9	131.5	35.6	36.5	33.7	34.8	140.5
Costs											
Cost of sales	US$ mm	**30.1**	30.0	29.4	26.5	116.0	25.6	27.4	22.4	20.1	95.5
Cost ROM (2)	US$/t	**53.6**	47.1	45.5	43.7	47.6	44.8	37.4	38.3	34.7	38.8
Cash cost (1) net of by-products	US$/lb	**0.58**	0.59	0.57	0.46	0.56	0.43	0.40	0.39	0.42	0.41
Sustaining cost (1) net of by-products	US$/lb	**0.72**	0.72	0.68	0.62	0.69	0.62	0.53	0.52	0.51	0.54
CAPEX	US$ mm										
Sustaining		**13.4**	9.9	8.6	7.7	39.5	9.2	6.0	7.2	6.1	28.6
Other		**7.2**	6.6	1.0	1.4	16.1	5.6	6.2	3.5	1.4	16.8

(1) Our cash cost and sustaining cost net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix - All in Sustaining Cash Cost | Mining.

(2) Our cost per ROM is measured with respect to treated ore volume. Refer to "Use of Non-IFRS Financial Measures" for further information.

Zinc production of 34kt in 4Q22 was down 5% and 8% compared to 4Q21 and 3Q22, respectively, due to scheduled maintenance in October in the milling circuit, which reduced treated ore production for approximately 4 days. A full replacement of equipment is scheduled for 1Q23. Zinc head grade averaged 9.87% (down 45bps from 4Q21 and 20bps from 3Q22) due to a higher volume of tailings reprocessing in the period.

In 2022, treated ore volume totaled 1,525kt, down 6% from last year due to the temporary capacity reduction of daily production in 1Q22 because of heavy rainfalls in the state of Minas Gerais, as previously informed. As a result, zinc production decreased to 132kt from 140kt in 2021.

Cost

Cost of sales was US$30 million in 4Q22 compared to US$26 million in the same period last year mainly explained by higher operating costs due to inflationary costs pressure, in addition to a negative FX variation. Compared to 3Q22, it was relatively stable.

Run of mine mining cost was US$54/t in 4Q22 compared with US$45/t in 4Q21 and US$47/t in 3Q22, affected in both periods by lower volumes and higher labor costs.

Cash cost net of by-products increased to US$0.58/lb compared with US$0.43/lb in 4Q21 primarily explained by lower volumes and higher TCs. Compared to 3Q22, cash cost slightly decreased.

In 4Q22, sustaining cost net of by-products was higher than in the same quarter last year as a result of higher cash cost and sustaining investments.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$13.4 million, mainly related to mine development and heavy equipment replacement, totaling US$39.5 million in 2022.

Outlook

For the next quarter, treated ore volume and zinc average grade are expected to slightly decrease due to the mill's scheduled maintenance shutdown in March 2023.

Morro Agudo

Morro Agudo (100% basis)		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**4Q21**	**3Q21**	**2Q21**	**1Q21**	**2021**
Ore Mined	kt	**233**	226	240	208	908	205	184	243	241	873
Treated Ore	kt	**254**	259	259	245	1,017	238	208	269	267	982
Grade											
Zinc	%	**1.99**	1.91	2.09	2.26	2.06	2.28	2.00	1.93	2.00	2.05
Lead	%	**0.94**	0.81	0.76	0.88	0.85	0.91	0.67	0.65	0.70	0.73
Production | metal contained											
Zinc	kt	**4.6**	4.6	4.7	4.7	18.7	4.7	3.6	4.4	4.5	17.3
Lead	kt	**1.8**	1.7	1.5	1.3	6.2	1.5	0.8	1.1	1.2	4.7
Zinc sales	kt	**4.6**	4.6	4.7	4.7	18.7	4.7	3.6	4.4	4.5	17.3
Costs											
Cost of sales	US$ mm	**18.0**	15.1	17.7	13.0	63.8	14.0	14.1	11.9	9.7	49.7
Cost ROM (2)	US$/t	**54.4**	31.6	41.2	43.4	42.6	48.7	33.2	22.9	29.5	33.1
Cash cost (1) net of by-products	US$/lb	**1.26**	1.00	0.74	0.93	0.98	1.06	0.98	0.57	0.81	0.85
Sustaining cost (1) net of by-products	US$/lb	**1.46**	1.09	0.97	1.06	1.14	1.36	1.23	0.77	0.87	1.05
CAPEX	US$ mm										
Sustaining		**1.9**	0.9	2.3	1.1	6.3	2.5	1.7	1.8	0.5	6.6
Other		**0.2**	0.1	0.1	0.2	0.5	0.6	0.2	0.1	0.1	1.0

(1) Our cash cost and sustaining cost net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix - All in Sustaining Cash Cost | Mining.

(2) Our cost per ROM is measured with respect to treated ore volume. Refer to "Use of Non-IFRS Financial Measures" for further information.

In 4Q22, treated ore volume was 254kt, up 7% compared to 4Q21 and down 2% compared to 3Q22.

Zinc production of 5kt in 4Q22 decreased by 2% compared to 4Q21 and remained relatively flat compared to 3Q22. Zinc head grade averaged 1.99% down 29bps and up 8bps compared to 4Q21 and 3Q22, respectively.

In 2022, zinc production totaled 19kt, up 8% compared to 2021. As previously disclosed, several initiatives related to the prioritization of the mine deepening development to increase underground production and mining flexibility were implemented, supporting the results throughout 2022.

Cost

Cost of sales was US$18 million in 4Q22 compared to US$14 million in the same period last year and US$15 million in 3Q22.

Run of mine mining cost was US$54/t in the quarter, up 12% year-over-year due to higher personnel expenses. Compared to 3Q22, the increase was also mainly driven by personnel expenses, in addition to higher maintenance costs.

In 4Q22, cash cost net of by-products was US$1.26/lb compared with US$1.06/lb in 4Q21 due to higher personnel expenses and maintenance. Compared to 3Q22, cash cost increased by US$0.26/lb mainly driven by higher operating costs, including equipment replacement, in addition to lower limestone sales during the period, reducing by-product contribution.

In 4Q22, sustaining cost net of by-products was higher than the same quarter last year following higher cash cost.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$1.9 million, mainly related to mine development and equipment acquisition, totaling US$6.3 million in 2022.

Outlook

Based on the mine sequencing plan, zinc production in the next quarter is expected to remain at similar level of 4Q22.

Financial performance

US$ million	4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
Net Revenues	**315.2**	**241.3**	**323.3**	**(2.5%)**	**1,248.0**	**1,165.6**	**7.1%**
Cost of Sales [1]	(303.0)	(193.4)	(191.0)	58.6%	(905.2)	(726.7)	24.6%
Gross Profit	**12.2**	**47.9**	**132.2**	**(90.8%)**	**342.8**	**438.9**	**(21.9%)**
Adjusted EBITDA	**78.0**	**63.7**	**121.7**	**(35.9%)**	**439.8**	**476.9**	**(7.8%)**
Adjusted EBITDA Mrg.	*24.7%*	*26.4%*	*37.6%*	*(13.0pp)*	*35.2%*	*40.9%*	*(5.7pp)*

Note: Financial performance pre intersegment eliminations. [1] Includes the cost of sales of Aripuanã of US$75 million in 4Q22 and 2022.

Net revenues for the mining segment totaled US$315 million in 4Q22, down 3% versus 4Q21. This performance was mainly driven by higher TCs and the decrease in LME base metal prices; partially offset by higher copper, lead, and silver volumes. Compared to 3Q22, net revenues increased by 31% due to higher LME base metal prices, except for zinc, and the increase in copper, lead, and silver sales volumes.

In 2022, net revenues increased by 7% year-over-year to US$1,248 million, mainly due to higher zinc LME prices, and the increase in copper, lead, and silver volumes.

Revenues are recorded at provisional prices and, typically, an adjustment is then made after delivery, based on the pricing terms provided for under the relevant contract. In addition, the difference between the provisional and the final price received is recognized by adjusting the price in the period in which the sale is concluded.

Reconciliation of realized prices

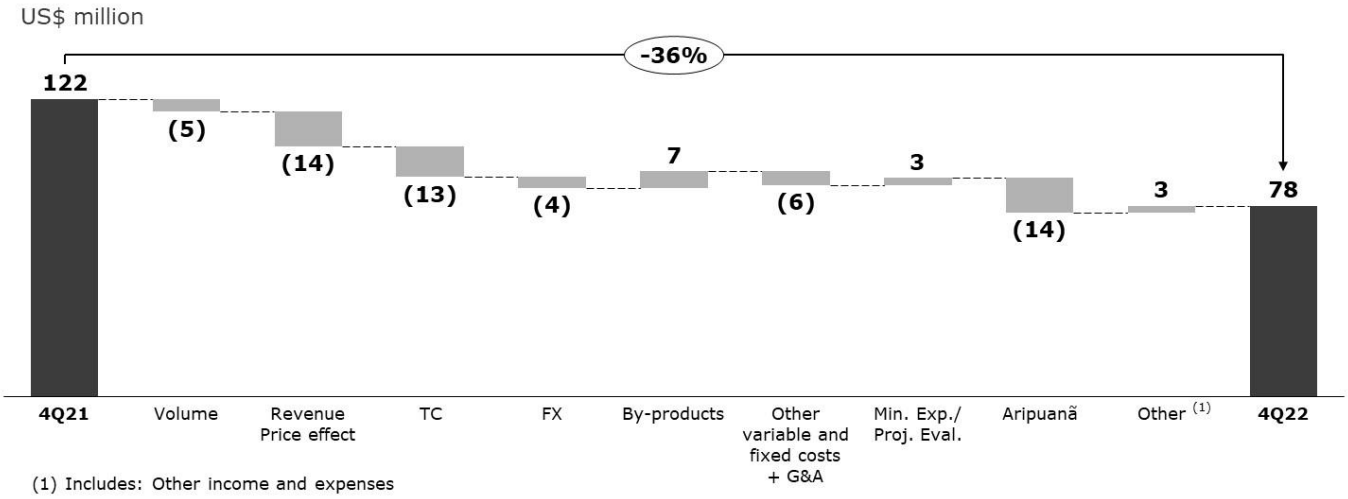
	4Q22				3Q22			
US$ million	**Zinc**	**Copper**	**Lead**	**Total**	**Zinc**	**Copper**	**Lead**	**Total**
Current period sales	137.3	76.5	76.5	290.3	157.9	59.7	59.8	277.4
Price adjustments (MTM)	6.0	12.0	14.4	32.4	(1.8)	1.7	1.1	1.0
	143.3	**88.6**	**90.9**	**322.7**	**156.1**	**61.3**	**61.0**	**278.4**
Final adjustments				(12.5)				(28.2)
Silver stream				2.3				(15.1)
Other by-products [1]				1.4				4.2
Energy				1.3				2.1
Others [2]				0.0				(0.0)
Total Revenue				**315.2**				**241.3**

[1] Limestone and stone
[2] LC 160

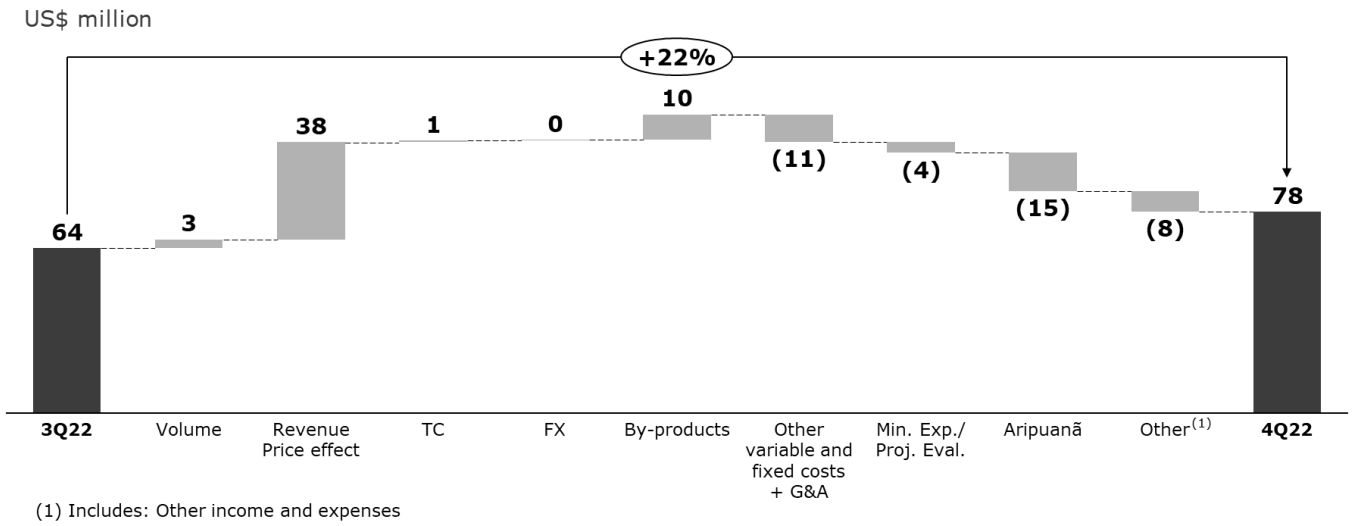
Cost of sales in 4Q22 was US$303 million, including US$75 million from Aripuanã with a higher unit cost (ramp up phase). Excluding the effect of Aripuanã, cost of sales totaled US$228 million compared to US$191 million in 4Q21 and US$193 million in 3Q22, mainly driven by increased maintenance.

In 2022, cost of sales was US$905 million compared to US$727 million, mainly due to the effect of Aripuanã and higher operational costs year-over-year.

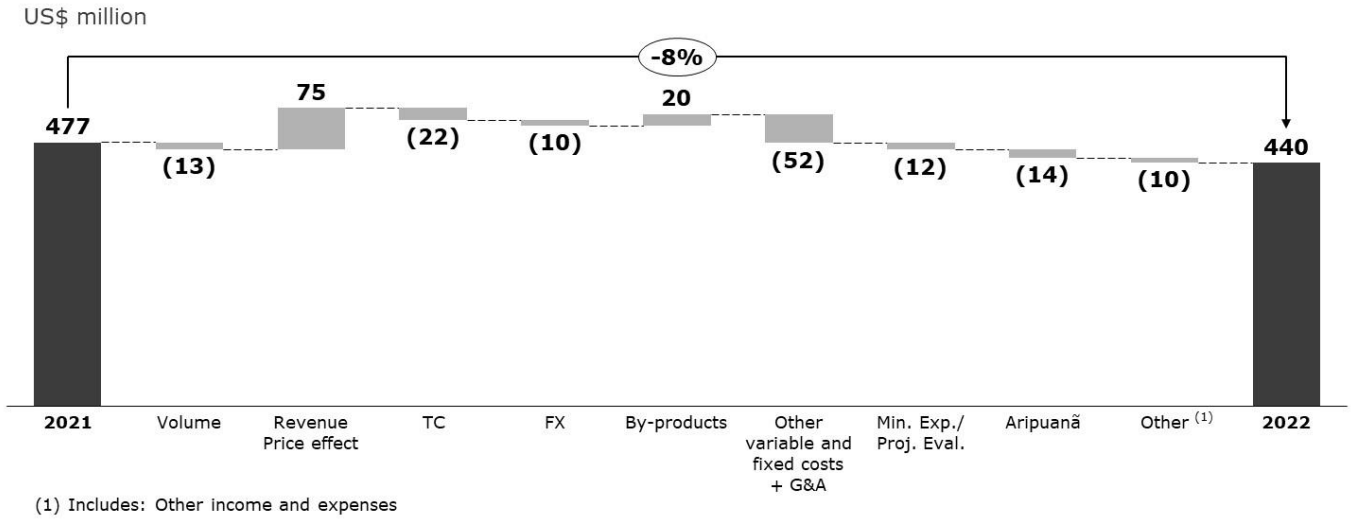
Adjusted EBITDA for the mining segment in 4Q22 was US$78 million compared to US$122 million in 4Q21. This performance was primarily explained by (i) lower prices and higher TCs for a total amount of US$27 million; and (ii) the negative variation of US$14 million related to Aripuanã.



Compared to 3Q22, Adjusted EBITDA increased by 22%. This increase was mainly driven by (i) the changes in market prices that result in MTM adjustments and a positive net price effect of US$38 million; and (ii) higher by-products contribution of US$10 million; partially offset by (iii) higher operational costs; and (iv) the effect of Aripuanã.



In 2022, Adjusted EBITDA for the mining segment amounted to US$440 million compared to US$477 million in 2021. The positive variation related to the price effect of metal prices and changes in market prices that result in MTM adjustments of US$75 million and higher by-products contribution were offset by (i) the increase in operational costs, including maintenance, energy and third-party services; (ii) higher mineral exploration and project evaluation investments; and (iii) Aripuanã effect. Adjusted EBITDA was also affected by the Brazilian real appreciation against the U.S. dollar.



Cash cost and AISC [5,6]

Consolidated cash cost		4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
Cash cost net of by-products	US$/t	448	1,267	547	(18.1%)	626	467	34.1%
AISC net of by-products	US$/t	1,743	2,115	1,480	17.8%	1,598	1,236	29.3%
Cash cost net of by-products	US$/lb	0.20	0.57	0.25	(18.1%)	0.28	0.21	34.1%
AISC net of by-products	US$/lb	0.79	0.96	0.67	17.8%	0.72	0.56	29.3%

Note: Cash cost and AISC per ton sold does not include the impact of the cost of idleness capacity of US$4.4 million in Vazante in 2022, and US$2.0 million in Atacocha in 2022.

Cash cost net of by-products for the mining segment in 4Q22 decreased to US$0.20/lb compared to US$0.25/lb in 4Q21. This decrease was mainly explained by (i) higher by-products credits from our

[5] Our cash cost and AISC net of by-products credits are measured with respect to zinc sold.
[6] AISC does not include Aripuanã CAPEX.

Peruvian mines with a positive impact of US$0.39/lb; partially offset by (ii) lower zinc volumes; (iii) higher TCs and operational costs.

Compared to 3Q22, cash cost decreased by US$0.37/lb due to higher by-products contribution, which reduced our cost by US$0.40/lb.

For 2022, cash cost increased to US$0.28/lb (or US$626/t) compared to US$0.21/lb (or US$467/t) in 2021, mainly driven by (i) lower zinc volumes with a negative impact of US$0.07/lb; and (ii) higher TCs of US$0.04/lb; which were partially offset by higher by-products credits with a positive impact of US$0.10/lb.

AISC net of by-products in 4Q22 was US$0.79/lb up 18% compared to US$0.67/lb in 4Q21 and down 18% compared to US$0.96/lb 3Q22, following the decrease in cash costs.

AISC in 2022 was US$0.72/lb (or US$1,598/t), up 29% compared to 2021 due to (i) higher cash costs; and (ii) the increase in sustaining investments and royalties; which were partially offset by (iii) lower workers participation provisions.

For a reconciliation of cash cost and AISC net of by-products, please refer to the appendix section "All-in Sustaining Cost – Mining".

Smelting segment

Consolidated		4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
Production								
Zinc metal	kt	148.8	147.4	143.9	3.4%	566.6	565.9	0.1%
Global Recovery	*%*	*93.8*	*92.9*	*93.5*	*27bps*	*93.6*	*94.3*	*(77bps)*
Zinc oxide	kt	8.1	11.1	10.3	(21.6%)	40.3	41.7	(3.3%)
Total	**kt**	**156.9**	**158.5**	**154.2**	**1.7%**	**606.9**	**607.6**	**(0.1%)**
Sales								
Zinc metal	kt	158.9	151.7	148.1	7.3%	575.9	577.9	(0.3%)
Zinc oxide	kt	8.5	10.7	10.3	(17.0%)	40.3	40.9	(1.5%)
Total	**kt**	**167.4**	**162.3**	**158.4**	**5.7%**	**616.2**	**618.8**	**(0.4%)**

In 4Q22, total production was 157kt, up 2% year-over-year driven by increased production in all three smelters. Compared to 3Q22, production was down 1% due to lower volumes in Brazil.

Sales amounted to 167kt, up 6% and 3% from 4Q21 and 3Q22, respectively, following higher production volumes and solid demand in our markets. The resale of material from third parties was 0.5kt in the quarter.

In 2022, total production amounted to 607kt, and remained relatively flat versus the same period a year ago due to the limited concentrate supply from the Vazante mine in 1Q22, which affected our operations in Brazil, as previously disclosed. Total sales of 616kt, including the resale of 9.3kt from third parties, decreased by 0.4%, compared to 2021, which also included the resale of metal from third parties of 16kt.

Outlook

During the next quarter, we expect production to remain relatively stable compared to 4Q22. Sales are expected to follow production volumes or slightly decrease, given seasonal demand.

Peru

Cajamarquilla (100% basis)		4Q22	3Q22	2Q22	1Q22	2022	4Q21	3Q21	2Q21	1Q21	2021
Zinc metal production	kt	**86.4**	85.6	84.1	76.7	332.8	84.7	76.1	84.5	82.8	328.1
Zinc metal sales	kt	**93.0**	92.1	81.0	74.3	340.4	89.4	80.8	85.8	77.5	333.4
Zinc content in products	kt	**92.7**	91.5	78.5	71.4	334.1	85.2	76.8	85.7	77.4	325.0
Cost of sales	US$ mm	**317**	337	287	278	1,219	324	245	253	217	1,039
(-) Raw material		**(214)**	(238)	(236)	(235)	(923)	(213)	(190)	(182)	(163)	(748)
(+) By-product		**(7.9)**	(6.5)	(8.1)	(5.1)	(27.6)	(5.7)	(6.0)	(4.0)	(4.7)	(20.3)
(+/-) Consolidation effects		**(50.9)**	(40.5)	17.6	5.5	(68.4)	(52.9)	(12.9)	(24.7)	(9.1)	(99.6)
(+) Others		**4.8**	1.5	(6.4)	(0.6)	(0.6)	(2.0)	11.2	(0.9)	(5.5)	2.7
(=) Conversion cost	US$ mm	**49.2**	52.9	54.2	43.2	199.6	49.7	47.4	40.9	35.2	173.1
Conversion cost	US$/lb	**0.24**	0.26	0.31	0.27	0.27	0.26	0.28	0.22	0.21	0.24

Cajamarquilla (100% basis)		4Q22	3Q22	2Q22	1Q22	2022	4Q21	3Q21	2Q21	1Q21	2021
Cash cost (1) net of by-products	US$/lb	**1.18**	1.34	1.32	1.28	1.28	1.31	1.26	1.06	1.01	1.16
Sustaining cost (1) net of by-products	US$/lb	**1.25**	1.40	1.41	1.32	1.34	1.38	1.33	1.12	1.04	1.22
CAPEX	US$ mm										
Sustaining		**10.2**	10.0	13.1	5.2	38.5	12.1	8.3	9.8	5.3	35.5
Other		**2.7**	2.2	1.4	0.6	6.8	1.7	2.1	(0.1)	0.4	4.1

(1) Our cash cost and sustaining cost net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix - Conversion and All in Sustaining Cash Cost | Smelting.

(2) Cost of sales does not includes resale operations from third parties.

In 4Q22, Cajamarquilla smelter production was 86kt, up 2% compared to 4Q21. Compared to 3Q22, smelter production increased by 1%, continuing the better performance achieved in the previous quarter, in addition to the stability of calcine inventory.

Metal sales were 93kt in 4Q22, up 4% year-over-year. Compared to 3Q22, sales also increased by 1%, following production.

In 2022, smelter production totaled 333kt, up 1% compared to 2021, while smelter sales totaled 340kt, increasing 2% compared to 2021 mainly driven by the increase in exports.

Costs

Cost of sales was US$317 million in 4Q22 compared to US$324 million in the same period last year and US$337 million in 3Q22. In both periods, this performance was positively affected by lower raw material costs, following the decrease in LME zinc prices.

In 4Q22, conversion cost was US$0.24/lb compared to US$0.26/lb in both 4Q21 and 3Q22. In both cases, this decrease is primarily explained by lower variable costs.

Cash cost net of by-products in 4Q22 was US$1.18/lb compared to US$1.31/lb in 4Q21 and US$1.34/lb in 3Q22. In both periods, cash cost was positively affected by higher by-products contribution and lower zinc in concentrate prices.

In 4Q22, sustaining cost net of by-products was lower than in 4Q21 following lower cash cost. Compared to 3Q22, sustaining cost decreased by 11%.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$10.2 million, mainly due to equipment replacement and repairs, totaling US$38.5 million in 2022.

Outlook

For the next quarter, we expect production to remain stable and at the same levels as 4Q22.

Brazil

In 4Q22, smelter production amounted to 70kt, up 1% compared to the same period last year. Compared to 3Q22, smelter production decreased by 3%.

Total sales volume (zinc metal + zinc oxide) amounted to 74kt and increased by 8% and 6% compared to 4Q21 and 3Q22, respectively, mainly due to Três Marias.

In 2022, smelter production totaled 274kt, down 2% year-over-year mainly driven by Três Marias which was impacted by limited concentrate supply from Vazante in 1Q22. Metal sales decreased by 4% to 235kt, while total sales volume (zinc metal + oxide) decreased by 3% to 276kt.

Três Marias

Três Marias (100% basis)		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**4Q21**	**3Q21**	**2Q21**	**1Q21**	**2021**
Zinc metal production	kt	**40.5**	39.6	40.2	29.3	149.6	37.9	38.4	40.6	39.8	156.7
Zinc oxide production	kt	**8.1**	11.1	11.2	9.9	40.3	10.3	10.6	10.4	10.4	41.7
Zinc metal sales	kt	**44.1**	37.3	39.9	30.5	151.8	37.9	44.1	40.5	41.2	163.7
Zinc content in products	kt	**50.5**	45.2	46.5	37.9	180.0	44.4	52.2	45.5	46.1	188.2
Cost of sales	US$ mm	**146**	153	185	138	621	148	142	125	111	527
(-) Raw material		**(90)**	(110)	(133)	(99)	(431)	(115)	(104)	(87)	(74)	(379)
(+) By-product		**(14.3)**	(14.0)	(17.0)	(12.1)	(57.4)	(11.8)	(11.8)	(11.4)	(9.7)	(44.7)
(+/-) Consolidation effects		**(2.1)**	1.8	(0.6)	(2.6)	(3.5)	(0.5)	(1.1)	(6.1)	(8.0)	(15.6)
(+) Others		**(14.4)**	(12.0)	(14.8)	(11.2)	(52.4)	(8.7)	(11.1)	(8.3)	(7.9)	(36.0)
(=) Conversion cost	US$ mm	**24.5**	19.3	19.9	13.1	76.9	12.4	14.0	12.9	11.5	50.8
Conversion cost	US$/lb	**0.22**	0.19	0.19	0.16	0.19	0.13	0.12	0.13	0.11	0.12
Cash cost (1) net of by-products	US$/lb	**1.17**	1.37	1.67	1.47	1.41	1.31	1.04	1.14	0.99	1.11
Sustaining cost (1) net of by-products	US$/lb	**1.28**	1.49	1.78	1.54	1.52	1.39	1.08	1.17	1.00	1.16
CAPEX	US$ mm										
Sustaining		**2.8**	2.8	5.5	2.6	13.7	3.7	3.2	2.3	1.0	10.2
Other		**9.5**	9.1	6.4	3.5	28.5	4.3	1.6	0.9	0.6	7.4

(1) Our cash cost and sustaining cost net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix - Conversion and All in Sustaining Cash Cost | Smelting.

(2) Cost of sales does not includes resale operations from third parties.

In Três Marias total production (zinc metal + oxide) increased by 1% year-over-year. Compared to 3Q22, total production decreased by 4% due to silicate circuit performance in the period.

Metallic zinc production was up 7% from 4Q21 and 2% compared to 3Q22. Zinc metal sales followed the same trend and amounted to 44kt, up 16% and 18% compared to 4Q21 and 3Q22, respectively. In 4Q22, zinc oxide sales decreased to 9kt due to the typical seasonality that occurs in November and December.

In 2022, Três Marias total production amounted to 190kt, down 4% from 2021, while zinc metal sales decreased by 7% to 152kt and zinc oxide sales decreased by 2% to 40kt, respectively.

Costs

Cost of sales was US$146 million in 4Q22 compared to US$148 million in the same period last year and US$153 million in 3Q22 due to lower raw material cost, which partially offset other operational costs increase.

In 4Q22, conversion cost increased to US$0.22/lb, compared to US$0.13/lb in 4Q21. The increase was mainly explained by energy costs, which were positively affected in the same period last year by the recovery of GSF energy cost. Compared to 3Q22, conversion cost was 14% higher mainly due to lower volumes.

Cash cost net of by-products in 4Q22 decreased to US$1.17/lb compared to US$1.31/lb in 4Q21 due to lower raw material costs and operating costs. Compared to 3Q22, cash cost also decreased, positively affected by the decrease in LME prices.

In 4Q22, sustaining cost net of by-products was lower than in 4Q21 and 3Q22 following the decrease in cash cost.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$2.8 million, mainly due to the acquisition, replacement and repairs of equipment, totaling US$13.7 million in 2022.

Outlook

For the next quarter, we expect production to be similar to 4Q22.

Juiz de Fora

Juiz de Fora (100% basis)		**4Q22**	**3Q22**	**2Q22**	**1Q22**	**2022**	**4Q21**	**3Q21**	**2Q21**	**1Q21**	**2021**
Zinc metal production	kt	**21.9**	22.2	20.7	19.4	84.2	21.3	18.4	20.7	20.7	81.1
Zinc metal sales	kt	**21.7**	22.3	20.5	19.2	83.7	20.8	19.7	20.4	19.9	80.8
Zinc content in products	kt	**21.6**	22.1	20.3	19.0	83.1	20.6	19.5	20.3	19.6	80.0
Cost of sales	US$ mm	**79**	88	83	75	325	63	60	57	50	230
(-) Raw material		**(57)**	(61)	(66)	(50)	(234)	(44)	(40)	(41)	(35)	(160)
(+) By-product		**(1.4)**	(0.6)	(1.1)	(1.0)	(4.2)	(0.9)	(0.7)	(0.9)	(0.7)	(3.1)
(+/-) Consolidation effects		**2.5**	0.3	2.4	(1.8)	3.4	3.1	2.4	0.9	0.7	7.2
(+) Others		**(6.4)**	(9.3)	(0.4)	(7.7)	(23.7)	(8.2)	(8.8)	(3.8)	(4.8)	(25.6)
(=) Conversion cost	US$ mm	**16.0**	18.2	17.8	15.0	67.1	13.4	12.9	11.7	10.2	48.1
Conversion cost	US$/lb	**0.34**	0.37	0.40	0.36	0.37	0.29	0.30	0.26	0.23	0.27
Cash cost (1) net of by-products	US$/lb	**1.35**	1.45	1.50	1.35	1.41	1.13	1.08	1.01	0.92	1.03
Sustaining cost (1) net of by-products	US$/lb	**1.47**	1.59	1.65	1.44	1.54	1.28	1.25	1.08	0.95	1.14
CAPEX	US$ mm										
Sustaining		**3.7**	5.4	5.2	2.0	16.3	4.4	5.5	2.8	0.9	13.5
Other		**1.8**	1.1	1.6	1.6	6.1	2.6	2.2	0.6	0.2	5.5

(1) Our cash cost and sustaining cost net of by-products credits are measured with respect to zinc sold. For a cash cost reconciliation to COGS, please refer to Appendix - Conversion and All in Sustaining Cash Cost | Smelting.

In 4Q22, Juiz de Fora production was 22kt, up 3% and down 2% compared to 4Q21 and 3Q22, respectively. Zinc metal sales totaled 22kt in 4Q22, up 5% and down 2% from 4Q21 and 3Q22, respectively, following the production trend.

In 2022, zinc metal production increased by 4% to 84kt, including some zinc concentrates from Aripuanã towards the end of 2022, and sales of 84kt were also 4% higher from 2021.

Costs

Cost of sales was US$79 million in 4Q22 compared to US$63 million in the same period last year primarily driven by higher volumes and operational costs, including maintenance and energy, and the increase in logistic expenses. Compared to 3Q22, cost of sales decreased by 11%, following lower raw material prices.

In 4Q22, conversion cost was US$0.34/lb compared to US$0.29/lb in 4Q21. The increase was mainly explained by higher personnel expenses and third-party services, and the appreciation of the Brazilian real against the U.S. dollar. Compared to 3Q22, conversion cost decreased by 10% primarily due to lower other variable costs, such as maintenance.

Cash cost net of by-products in 4Q22 increased to US$1.35/lb compared to US$1.13/lb in 4Q21 mainly driven by higher operating costs and raw material costs. Compared to 3Q22, cash cost decreased by US$0.10/lb due to lower raw material costs.

In 4Q22, sustaining cost net of by-products followed cash cost trend and was higher compared to the same quarter last year and lower compared to 2Q22.

CAPEX

In 4Q22, sustaining capital expenditures amounted to US$3.7 million, mainly driven by the replacement and repairs of equipment, as well as disbursements related to the scheduled roaster maintenance, totaling US$16.3 million in 2022.

Outlook

For the next quarter, we expect production to slightly decrease.

Financial performance

US$ million	4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
Net Revenues	**606.3**	**615.5**	**511.2**	**18.6%**	**2,467.0**	**2,021.8**	**22.0%**
Cost of Sales	(542.9)	(578.6)	(552.7)	(1.8%)	(2,190.9)	(1,842.7)	18.9%
Gross Profit	**63.4**	**36.9**	**(41.4)**	**-**	**276.1**	**179.1**	**54.2%**
Adjusted EBITDA	**45.9**	**58.3**	**31.9**	**43.8%**	**326.4**	**270.9**	**20.5%**
Adjusted EBITDA Mrg.	*7.6%*	*9.5%*	*6.2%*	*1.3pp*	*13.2%*	*13.4%*	*(0.2pp)*

Note: Financial performance pre intersegment eliminations.

Net revenues were US$606 million in 4Q22, up 19% compared to US$511 million in 4Q21, mainly due to higher volumes. Compared to 3Q22, net revenues decreased by 1% due to lower LME base metal prices, partially offset by higher volumes.

In 2022, net revenues increased by 22% year-over-year to US$2,467 million, mainly due to the increase in zinc metal prices.

Cost of sales decreased by 2% in 4Q22, totaling US$543 million compared to US$553 million in 4Q21. Compared to 3Q22, cost of sales decreased by 6% mainly explained by (i) the decrease in metal prices impacting the zinc concentrate purchase price; and (ii) higher sales volume.

In 2022, cost of sales increased by 19% year-over-year to US$2,191 million, mainly driven by (i) the increase in metal prices impacting the zinc concentrate purchase price; (ii) the increase in energy and other variable costs; and (iii) the negative FX impact.

Purchases of zinc in concentrate are recorded at provisional prices and, typically, an adjustment is made after delivery, which is based on the pricing terms provided for under the respective contract. In addition, the difference between the provisional and the final price received is recognized by adjusting the price in the period in which the purchase is concluded.

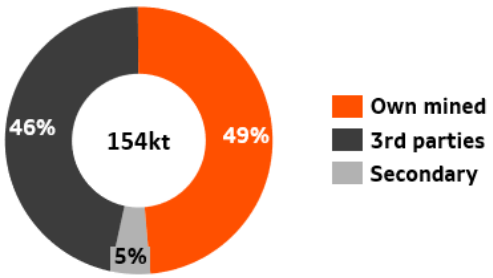
Reconciliation of realized prices

	4Q22	3Q22
US$ million	**Zinc**	**Zinc**
Current period concentrate purchase	351.2	395.6
Price adjustments (MTM)	10.4	(1.7)
	361.6	**393.9**
Final adjustments	(12.7)	(18.5)
Other Variable and Fixed Cost	180.7	186.9
Energy	(4.0)	(3.1)
Depreciation	17.3	19.4
Total Cost of sales	**542.9**	**578.6**

Zinc concentrate | treatment charges

The smelters use zinc concentrate as feedstock, which is supplied from our mines and from third-party suppliers. In 4Q22, Nexa acquired 49% of zinc concentrate by our own mines, with the remainder supplied by third parties.

Sources of Zinc Concentrate to Nexa Smelters (kt) – 4Q22

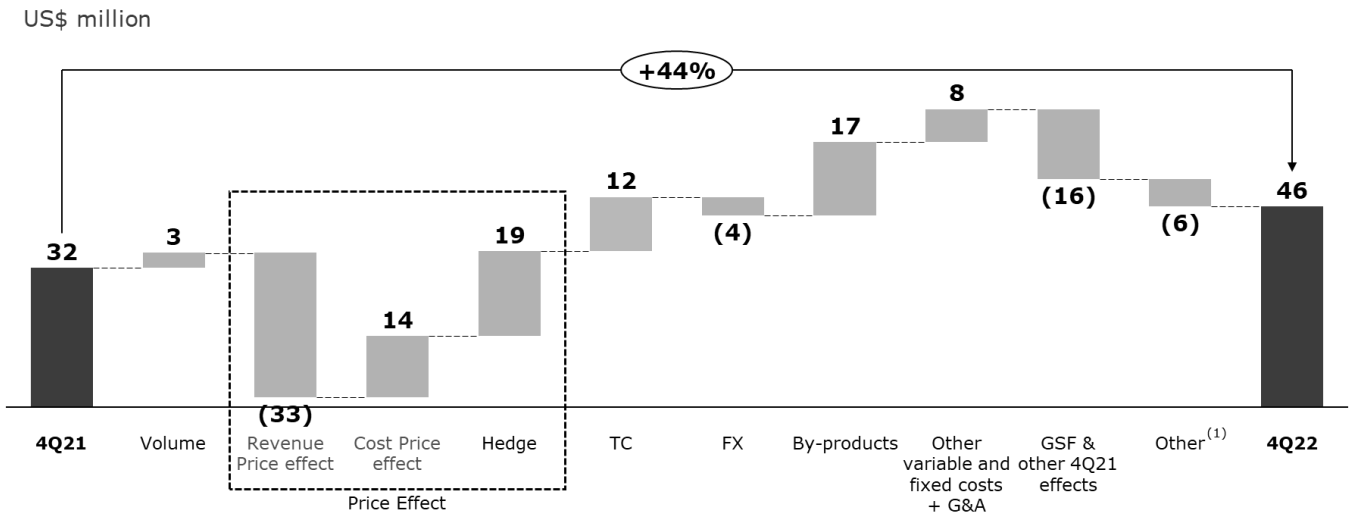


We apply a benchmark TC for our integrated mining and smelting operations. For purchases of zinc concentrate from third-party suppliers, the treatment charge is based on the benchmark TC, spot treatment charges, or treatment charges negotiated annually.

The 2022 benchmark TC, negotiated in April 2022, was US$230/t concentrate, up 45% from 2021 (US$159/t).

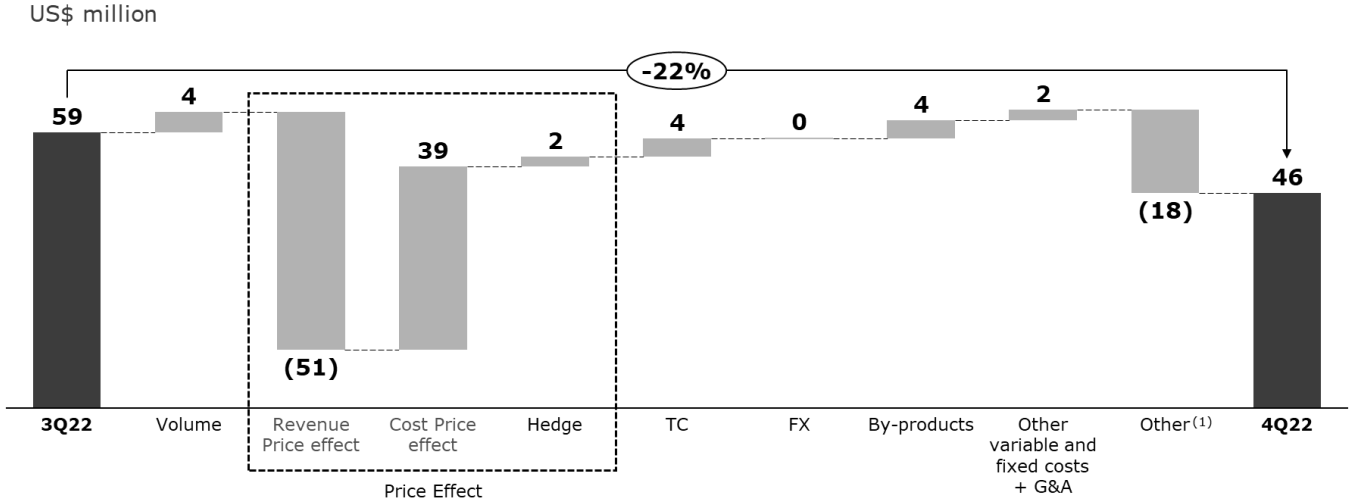
In order to reduce volatility, for the majority of our third-party contracts, which are renewed during different periods throughout the year, we consider the 3-year benchmark TC. The reference benchmark for TC 2022, 2021 and 2020 is US$230/t concentrate, US$159/t concentrate, and US$300/t concentrate, respectively.

Adjusted EBITDA for the smelting segment totaled US$46 million in 4Q22 compared to US$32 million reported in 4Q21. This increase was mainly explained by (i) higher TCs with a positive variation of US$12 million; and (ii) the increase in by-products contribution of US$19 million mainly due to higher sulphuric acid prices; which were partially offset by the increase in other income and operation expenses in the quarter of US$6 million related to environmental liabilities and provisions update.



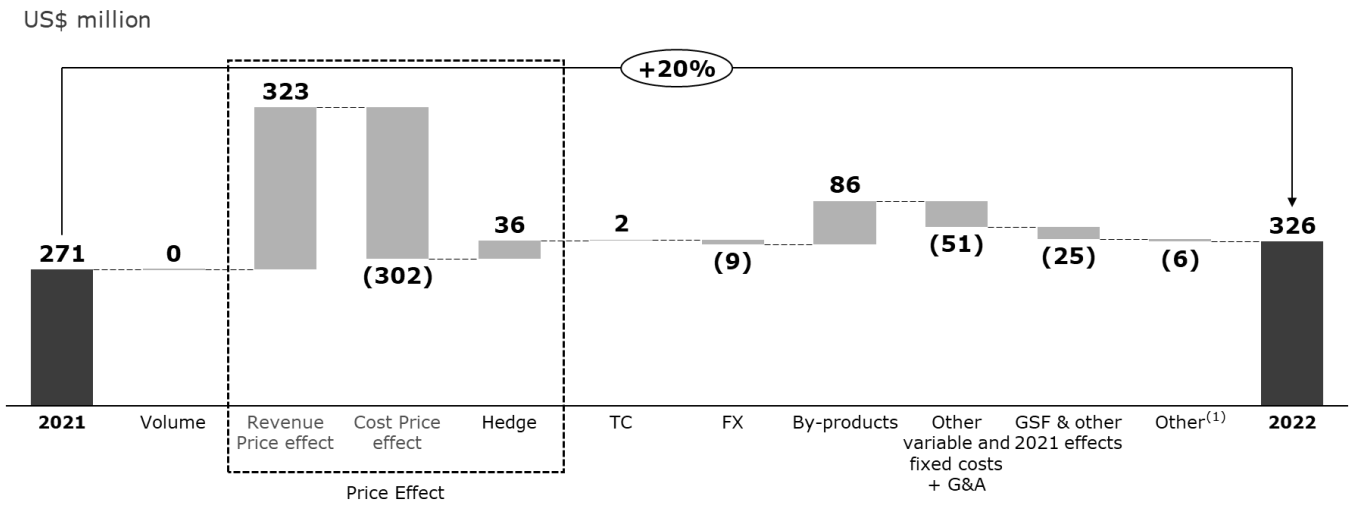
(1) Includes: Other income and expenses and Project Evaluation

Compared to 3Q22, Adjusted EBITDA decreased by US$13 million, mainly driven by (i) the decrease in LME prices and changes in market prices that result in MTM adjustments with a negative impact of US$12 million; and (ii) the negative impact of US$16 million, related to environmental liabilities and higher provision in Brazil affecting other income and expenses; which were partially offset by (iii) higher TCs and by-products contribution.



(1) Includes: Other income and expenses and Project Evaluation

During 2022, Adjusted EBITDA for our smelting segment totaled US$326 million, up 20% year-over-year. The positive price effect due to higher LME prices and changes in market prices in respect of quotation period adjustments of US$21 million and positive variation of by-products contribution of US$86 million were partially offset by higher operational costs driven by maintenance and material costs. Adjusted EBITDA in the year was also affected by the annual update of environmental liabilities and an increase in provision, mentioned above. In the year, the temporary difference in hedge had a positive contribution of US$17 million.



(1) Includes: Other income and expenses and Project Evaluation

Conversion cost, Cash cost and AISC[7]

Consolidated		4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
Smelting conversion cost	US$/t	545	570	503	8.4%	575	459	25.4%
Cash cost net of by-products	US$/t	2,650	3,007	2,831	(6.4%)	2,950	2,492	18.4%
AISC net of by-products	US$/t	2,879	3,230	3,114	(7.6%)	3,183	2,689	18.4%
Smelting conversion cost	US$/lb	0.25	0.26	0.23	8.4%	0.26	0.21	25.4%
Cash cost net of by-products	US$/lb	1.20	1.36	1.28	(6.4%)	1.34	1.13	18.4%
AISC net of by-products	US$/lb	1.31	1.47	1.41	(7.6%)	1.44	1.22	18.4%

Note: Cash cost and AISC per ton sold does not include the impact of the cost of idleness capacity of US$2.3 million in Três Marias in 2022.

Cash cost net of by-products for the smelting segment decreased to US$1.20/lb in 4Q22 compared to US$1.28/lb in 4Q21. This decrease was driven by lower LME prices, higher TCs, and higher by-products contribution, which were partially offset by higher operating costs.

Compared to 3Q22, cash cost decreased by US$0.16/lb, driven by lower LME prices with a positive impact of US$0.09/lb.

Cash cost in 2022 was US$1.34/lb (or US$2,950/t) compared to US$1.13/lb (or US$2,492/t) a year ago. The increase was mainly driven by (i) higher LME zinc prices, impacting our raw material costs, with an impact of US$0.20/lb; and (ii) higher operating costs with a negative impact of US$0.08/lb; which were partially offset by higher by-products contribution with a positive impact of US$0.08/lb.

AISC net of by-products decreased in 4Q22 to US$1.31/lb from US$1.41/lb in 4Q21 mainly due to the above-mentioned reasons.

AISC net of by-products in 2022 was US$1.44/lb (or US$3,183/t), up 18% compared to 2021, explained by the aforementioned factors and the increase in sustaining investments and the increase in workers participation provision.

Conversion cost for the smelting segment in 4Q22 was US$0.25/lb, up US$0.02/lb from 4Q21 mainly driven by higher energy costs, which were positively affected in 4Q21 by the recovery of undue GSF energy costs. Compared to 3Q22, conversion cost decreased by 4% due to lower other variable costs.

[7] Our conversion cost, cash cost and AISC net of by-products credits are measured with respect to zinc sold.

In 2022, conversion cost increased to US$0.26/lb compared to US$0.21/lb in 2021, which benefitted from the recovery of undue GSF energy costs GSF, in addition to higher costs.

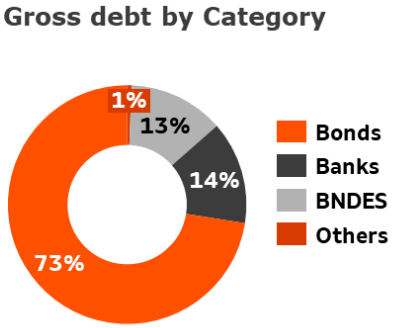
For a reconciliation of conversion cost, cash cost, AISC, please refer to the appendix section "Conversion and All-in Sustaining Cost – Smelting".

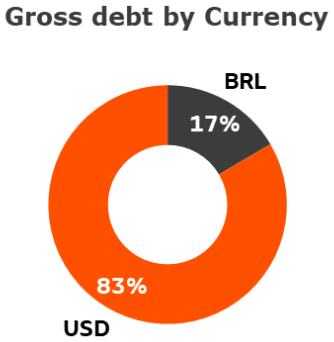
Liquidity and Indebtedness

On December 31, 2022, Nexa's consolidated gross debt[8] amounted to US$1,669 million, 1% higher compared to the balance at September 30, 2022, mainly driven by the 3% Brazilian real (end of period) appreciation against the U.S. dollar.

At the end of the period, 83% (or US$1,393 million) of the gross debt was denominated in U.S. dollars and 17% (or US$276 million) in Brazilian reais.

The following charts show Nexa's gross debt by category and currency.

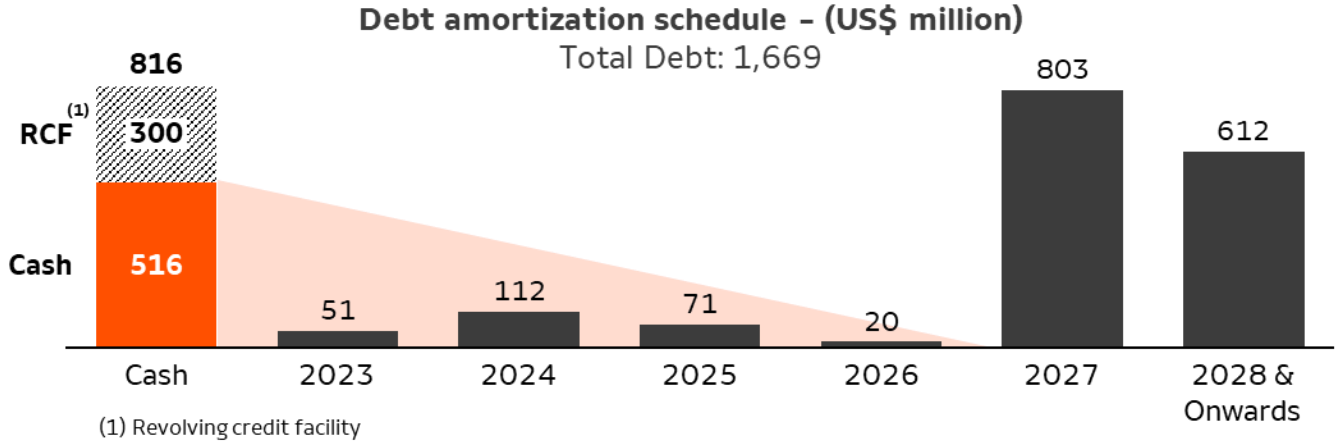




Nexa's balance sheet remains solid, and liquidity remains strong. Cash and cash equivalents and financial investments ("total cash") amounted to US$516 million at December 31, 2022, 4% lower compared to September 30, 2022, mainly driven by the continued investment over the quarter in excess of operating cash flows.

Total cash was sufficient to cover the payment of all obligations maturing over the next 5 years. The average maturity of the total debt was 4.6 years at an average interest rate of 5.31% per year.

On December 31, 2022, Nexa's net debt[9] was US$1,161 million compared with US$1,115 million at the end of 3Q22.



Only 3% (US$51 million) of the total debt matures in 2023, 12% (US$203 million) matures between 2024 and 2026, while 85% (US$1,415 million) of total debt matures in and after 2027.

Financial leverage, measured by the ratio of net debt to Adjusted EBITDA of the last twelve months, increased to 1.53x at December 31, 2022, compared to a ratio of 1.41x at September 30, 2022, mainly explained by the lower Adjusted EBITDA and higher net debt. Nexa was in compliance with all of its financial covenants.

[8] Loans and financings ("gross debt")
[9] Gross debt (US$1,669 million) minus cash and cash equivalents (US$498 million), minus financial investments (US$18 million), plus derivatives (US$3 million), plus Lease Liabilities (US$5 million). It does not include the financial instrument related to the offtake agreement.

US$ million	Dec 31, 2022	Sep 30, 2022
Net debt	1,161.0	1,115.1
LTM Adj. EBITDA	760.3	793.4
Net debt/LTM Adj. EBITDA[10]	1.53x	1.41x

In addition to continuing to assess short-term and mid-term commodities prices, management continues to review Nexa's capital structure, financial position and the maturity profile of our debt.

Following our liability management strategy and considering our robust cash position, Nexa Peru, a subsidiary of Nexa, in February 2022 announced and completed the early redemption and cancellation of all of its outstanding 4.625% Notes 2023 in the principal amount of US$128 million.

Credit Rating

In January 2023, S&P affirmed its "BB+" rating and "stable" outlook for Nexa, reflecting Nexa's expected higher amounts of treated ore due to Aripuanã mine's ramp up in 2023, with Aripuanã on track to operate at full capacity in 2023, improved cash flow for the next couple of years amid lower investments and working capital, strong liquidity with a smooth debt amortization profile and robust cash position, despite lower metal price assumptions amid higher input costs, which could pressure margins. At the same time, S&P expects Nexa to maintain its net debt to Adjusted EBITDA ratio in the 1.5x-2.0x range for the next years even with cash disbursements for continued investments.

Rating agencies	Rating	Outlook
S&P	BB+	Stable
Fitch	BBB-	Stable
Moody's	Ba2	Stable

[10] Net debt to Adjusted EBITDA ratio presented in this report could be slightly different from some of our financial contracts reporting because of minor variances in Adjusted EBITDA definitions. Net debt to Adjusted EBITDA ratio for September 30, 2022 has been updated based on the Company's updated Adjusted EBITDA definition.

Cash flows

US$ million	4Q22	2022	2021
Cash provided by operating activities before working capital	**141.0**	**702.0**	**699.6**
Changes in operating assets and liabilities	(0.5)	(203.1)	(38.5)
Net cash flows provided by (used in):			
Operating activities	105.5	266.6	493.0
Investing activities	(112.3)	(378.9)	(469.3)
Financing activities	(16.6)	(149.2)	(344.1)
Decrease in cash and cash eq.	**(20.0)**	**(246.0)**	**(342.3)**
Cash and cash eq. at the beginning of the period	517.8	743.8	1,086.2
Cash and cash eq. at the end of the period [1]	497.8	497.8	743.8

[1] Does not include financial investments totaling US$18 million at December 31, 2022.

Note: For details on Cash flows, please refer to the "Consolidated financial statements at December 31, 2022".

In 4Q22, the cash provided by operating activities before working capital was US$141 million. Working capital changes had a negative impact of US$0.5 million. We paid US$21 million in interest and US$14 million in taxes. Consequently, net cash provided by operating activities was US$106 million.

We used US$112 million of net cash flows for investing activities in 4Q22 impacted primarily by (i) US$116 million of CAPEX; (ii) US$4 million in the acquisition of an additional percentage in associates (Enercan); partially offset by (iii) US$8 million of dividends received from associates.

We used US$17 million in cash in financing activities primarily due to (i) the payments of loans and financings; and (ii) the payment of dividends to non-controlling interests (Pollarix) of US$13 million. Foreign exchange effects on cash and cash equivalents had a positive impact of US$3 million.

In 2022, cash provided by operating activities before working capital was US$702 million. Working capital changes had a negative impact of US$203 million, primarily due to (i) an increase in inventories of US$75 million, including US$40 million of Aripuanã ore stockpile; (ii) a decrease in trade and confirming payables of US$49 million; (iii) an increase in other assets of US$73 million, due to the increase in recoverable income tax and judicial deposits; and (iv) a decrease in other liabilities of US$17 million, including tax liabilities and deferred income tax, among others.

We paid US$110 million in interest and US$119 million in taxes, primarily due to better results in Peru and a decrease in taxes losses and benefits resulting in a higher tax rate compared to previous years, resulting in US$267 million in net cash provided by operating activities in 2022. We used US$379 million to maintain the sustainability of our business and invest in our growth, including the investment in Aripuanã and the acquisition of the common shares of Tinka.

We used US$149 million in cash in financing activities primarily due to (i) the payments of loans and financings; (ii) the early redemption of our Notes 2023, partially offset by a new export credit agreement; and (iii) dividends payment of US$71 million, including the payment to non-controlling interests (Pollarix). Foreign exchange effects on cash and cash equivalents had a positive impact of US$16 million.

As a result, cash and cash equivalents decreased by US$246 million to US$498 million at the end of 2022.

Others

Offtake agreement

As previously disclosed, Nexa signed an offtake agreement with a third-party international player ("Offtaker"), in which it agreed to sell 100% of the copper concentrate produced by Aripuanã for a 5-year period starting in October 2022 and limited to 30,810 tons, at the lower of current market prices or a price cap.

The offtake agreement was structured to completely extinguish a previous existing future royalty obligation that the Company had with the Offtaker. The accounting for the offtake agreement resulted in the Company recording non-cash income of US$24 million in 2022.

For further information, please refer to note 16 (d) – Financial instruments in offtake agreement: fair value; and note 16 (iv) in the "Consolidated financial statements at December 31, 2022".

Adjusted EBITDA Definition

In December 2022, the Company revised its Adjusted EBITDA methodology to provide more clarity for operational and financial performance, and their respective analyses. Certain items were excluded, and Adjusted EBITDA was defined as a net income (loss) for the year, adjusted by (i) share in the results of associates, (ii) depreciation and amortization, (iii) net financial results, (iv) income tax, (v) (loss) gain on sale of investments, (vi) impairment and impairment reversals, (vii) gain or loss on sale and/or loss in write-offs of long-lived assets; and (viii) remeasurement in estimates of asset retirement obligations. In addition, management may adjust the effect of certain types of transactions that in its judgment are not indicative of the Company´s normal operating activities, or do not necessarily occur on a regular basis.

For further information, please refer to note 2 – Information by business segment: Accounting policy in the "Consolidated financial statements at December 31, 2022".

Impairment

In 2022, Nexa recorded a non-cash, pre-tax net impairment loss on long-lived assets of US$33 million (after-tax US$31 million), comprised of (i) an impairment reversal of US$80 million in the Cerro Pasco cash-generating unit ("CGU") associated with higher metal prices than assumed in the previous assessment and a change in operating assumptions in relation to the proposed Atacocha and El Porvenir further optimization being considered; (ii) an impairment loss of US$62 million in goodwill in the Mining Peru Group of CGUs; (iii) individual assets impairment in the amount of US$10 million, mainly within Assets and projects under construction; and (iv) US$40 million, within Mining projects and in relation to the greenfields (Shalipayco and Pukaqaqa), which are included in the Cerro Lindo CGU which is also part of the Mining Peru group of CGUs.

For further information, please refer to note 31 – Impairment of long-lived assets in the "Consolidated financial statements at December 31, 2022".

Enercan's deconsolidation

Enercan is a hydroelectric power plant which supplies electricity for our operations in which our subsidiary Pollarix has direct or indirect interest.

On November 2022, Nexa, through Pollarix, acquired 1.46% of Enercan's additional shares for US$4 million by exercising its proportional preemptive rights given the withdrawal of one of Enercan's previous shareholder. Before this date, Nexa and the other shareholders had joint control in Enercan. However, because of this withdrawal, Enercan remaining shareholders exercised their option to obtain these additional shares, which led one of them (not a Nexa related party) to acquire control over Enercan, making Nexa and the other shareholders lose their joint control. Since this date, Nexa

stopped recognizing Enercan's proportion of jointly held assets, liabilities, revenues and expenses and began to recognize it as an associate, through the equity method, since it still holds significant influence over this entity.

For further information, please refer to note 4 (ii) – Principles of consolidation in the "Consolidated financial statements at December 31, 2022".

Financial risk – hedge

Our financial risk management policy seeks to preserve our liquidity and protect our cash flow and its operating components (revenues and costs), as well as financial components (financial assets and liabilities) against adverse credit and market events such as fluctuations in currency and interest rates.

Our current hedge operation protects the margin of all our purchases in our smelting segment of third-party concentrates from LME variances. However, there could be a mismatch effect in the income statement in a particular period, as hedge, revenue and costs can be accrued with different timings due to the need of recognizing the fair value of the hedges in advance to the physical purchase or sale effect, the inventory balance, differences in the purchases and sales quotation periods.

Mato Grosso state tax

At the end of December, the government of Mato Grosso sanctioned a state tax law regarding its mining supervisory fee (TRFM – *Taxa Fiscal de Mineração*), which was regulated by a decree, and is expected to come into force in the second quarter of 2023. The tax will be collected according to the nature of the extracted ore. Furthermore, it was established that the tax rates will be reviewed within one year from its official publication.

Special dividend and outstanding share data

Share premium distribution

On February 15, 2023, Nexa's Board approved[11] a distribution of US$25 million as share premium (or special dividend), or approximately US$0.188766 per common share, considering 132,438,611 shares outstanding as of December 31, 2022, to shareholders of the Company of record at the close of business on March 10, 2023. The payment is scheduled for March 24, 2023.

[11] Subject to ratification, in accordance with Luxembourg laws, by the Company's shareholders at the annual shareholders' meeting for the fiscal year ended December 31, 2023 expected to occur in June 2024.

Market Scenario

4Q22

LME Prices		4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
Zinc	US$/t	3,001	3,271	3,364	(10.8%)	3,478	3,007	15.7%
Copper	US$/t	8,001	7,745	9,699	(17.5%)	8,797	9,317	(5.6%)
Lead	US$/t	2,098	1,976	2,331	(10.0%)	2,150	2,206	(2.5%)
Silver	US$/oz	21.17	19.23	23.33	(9.3%)	21.73	25.14	(13.5%)
Gold	US$/oz	1,726	1,729	1,795	(3.9%)	1,800	1,799	0.1%

Source: Bloomberg

Zinc

In 4Q22, the LME zinc price averaged US$3,001/t (or US$1.36/lb), down 11% and 8% compared to 4Q21 and 3Q22, respectively. During the quarter, zinc traded between US$2,682/t to US$3,289/t. The high volatility was explained by the continued low inventory levels and smelter shutdowns in Europe that persisted throughout the year due to the energy crisis. Europe used to receive approximately 40% of its energy supply from Russia, and the Russia-Ukraine war has continued to affect the energy supply. LME zinc price in 2022 closed at US$3,478/t, up 16% from US$3,007/t in 2021, while LME exchange inventories closed the year at 32kt, the lowest level recorded since 2010.

In China, the local authorities eased their zero COVID-19 policy earlier than expected. However, new waves of infection emerged recently with new restrictions, which may continue to impact demand recovery.

In 4Q22, zinc spot TCs for Chinese domestic material increased 57% compared to 3Q22 and reached US$211/t, mostly driven by the devaluation of the Yuan against the U.S. dollar. Imported TCs increased to US$275/t (vs US$218/t in 3Q22).

Demand for zinc metal in our Home Market (Latin America excluding Mexico) followed the global downward trend and decreased by 9% year-over-year and 7% quarter-over-quarter. In addition to the seasonal lull at the end of the year, the overall Brazilian industry suffered from tighter monetary policy, inflation, and higher indebtedness along with the global economic slowdown. Sectors such as civil construction, retail, furniture, and white goods were hindered by the high prices of raw materials and interest rates. However, new photovoltaic power generation projects and continued growth in light vehicle production increased by 5% year-over-year, which partially offset the negative impact of other segments. Zinc demand in the region reduced by 10% year-over-year. Nonetheless, it was still in line with pre-pandemic levels.

Copper

In 4Q22, the LME copper price averaged US$8,001/t (US$3.63/lb), down 18% year-over-year and up 3% compared to 3Q22, benefitting from the volatility of the U.S. dollar and the expectation of a recovery in the Chinese economy. Although there was a deterioration in the demand for copper, this was partially offset by negative news on the supply of concentrate and refined metal, such as potential shutdowns of Cobre Panamá and the smelter-refinery Paranapanema, which filed for bankruptcy. With that, 2023 mine production forecasts are still positive but modestly lower for the major players.

During the quarter, LME copper inventories were 34% lower compared to 3Q22, and closed the year at 88kt. Spot TCs in China averaged US$88/t in 4Q22, up 6% from 3Q22, explained by efforts to stockpile concentrate before the Chinese New Year.

Foreign Exchange

The U.S. dollar index recorded one of its highest gains since 2015 due to increases in the interest rates by the U.S. Federal Reserve, which totaled 425 basis points throughout 2022, mainly driven by the attempt to contain inflation and the slowdown of the global economy. However, expectations that the U.S. Federal Reserve will slow its interest rate hikes resulted in an index depreciation during 4Q22.

The average exchange rate for the Brazilian real in 4Q22 was 5.255/US$, versus 5.246/US$ in 3Q22 and 5.586/US$ in 4Q21. At the end of December, the Brazilian real/US$ exchange rate was 5.217.

The average exchange rate for the Peruvian soles in 4Q22 averaged 3.894/US$, stable compared to 3Q22 and down 3.2% compared to 4Q21. At the end of December, the Peruvian soles/US$ exchange rate was 3.806.

FX	4Q22	3Q22	4Q21	4Q22 vs. 4Q21	2022	2021	2022 vs. 2021
BRL/USD (Average)	5.255	5.246	5.586	(5.9%)	5.165	5.395	(4.3%)
BRL/USD (End of period)	*5.217*	*5.406*	*5.580*	*(6.5%)*	*5.217*	*5.580*	*(6.5%)*
PEN/USD (Average)	3.894	3.892	4.023	(3.2%)	3.834	3.883	(1.2%)
PEN/USD (End of period)	*3.806*	*3.983*	*4.002*	*(4.9%)*	*3.806*	*4.002*	*(4.9%)*

Source: Bloomberg

Market | 2023 Outlook

This past year has seen most commodity prices sold off sharply. However, this was largely due to specific disruptive short-term price drivers, including COVID-19 lockdowns in China, monetary policy in the United States, and the fallout from the energy crisis caused by the conflict between Russia and Ukraine. The impact of all these factors is expected to resolve or ease off in 2023. Furthermore, the demand for zinc and copper is still supported by strong fundamentals and the global net-zero transition.

When looking at zinc in 2023, China remains a key factor. The easing of COVID-19 restrictions and the gradual return of confidence should positively impact the rebound and growth in zinc demand in the upcoming months, if new waves of infection do not emerge.

The prospects for zinc demand in Latin America are expected to be similar to 2022. The Brazilian economy is expected to continue to grow, but additional inflationary pressure and fiscal uncertainties could affect internal GDP. On the other hand, civil construction and auto sectors should present a gradual recovery, while solar energy is expected to maintain its growth pace throughout 2023.

In Europe, demand for zinc is expected to contract for a second consecutive year but less severe than previously estimated, as inflationary pressures are showing signs of easing.

In the U.S., although inflation is still at high levels, it is notable that there has been a retreat. As measured by the Consumer Price Index ("CPI"), inflation is expected to drop to an average of 4% in 2023. Despite the optimistic scenario, a potential recession has not yet been ruled out and should be a point of attention this year.

Overall, the outlook for zinc and copper in the mid to long-term remains positive and supported by solid market fundamentals. For zinc, demand should be driven by investments in the infrastructure and construction sectors. On the supply side, the lack of feasible projects to fulfill demand should continue to put upward pressure on prices.

In the case of copper, electric vehicle production and renewable energy projects are expected to be essential to its demand. On the supply side, both greenfield and brownfield projects are expected to start operations in 2024-2025, which might increase in 15% copper mine supply by 2025 compared to 2022 according to Wood Mackenzie, contributing to a slight surplus in the market.

Risks and Uncertainties

Risk management is one of the key points in our business strategy and contributes to value creation and increasing the level of confidence in the Company held by its main stakeholders, including shareholders, employees, customers, suppliers and the local communities.

As a result, we have adopted an Enterprise Risk Management ("ERM") Policy that describes Nexa's Risk Management Model. The ERM forms an integral part of the processes in our operational units, corporate departments and projects, and provides support for decision-making by our Executive Officers and Board of Directors.

The risk assessment cycle is performed annually focusing on our strategy, operations and key projects. We seek to identify material risks, which are then assessed with consideration of the potential health, safety, environmental, social, reputational, legal and financial impacts. By embedding risk management into our work processes and critical business systems, we work to ensure we make decisions based on relevant inputs and valid data. The material risks identified during the risk management process are monitored and reported to the Executive Team, Audit Committee and Board of Directors.

Our operations are exposed to a number of inherent risks and uncertainties, and our results may be influenced by the following factors, including, among others:

- the cyclical and volatile prices of commodities;
- the changes in the expected level of supply and demand for commodities;
- foreign exchange rates and inflation;
- the risks and uncertainties relating to economic and political conditions in the countries in which we operate;
- changes in global market conditions;
- the impact of expanded regional or global conflict, including the conflict between Russia and Ukraine, and the resulting potential impacts on supply and demand for commodities, global security concerns, and market volatility;
- outbreaks of contagious diseases or health crises impacting overall economic activity regionally or globally, including the COVID-19 pandemic, and the potential impact thereof on commodity prices, our business and operating sites, and the global economy;
- increasing demand and evolving expectations from stakeholders with respect to our environmental, social and governance ("ESG") practices, performance and disclosures, including the ability to meet energy requirements while complying with greenhouse gas emissions regulations and other energy transition policy changes and laws in the countries in which we operate;
- the impact of climate change on our operations, workforce and value chain;
- environmental, safety and engineering challenges and risks inherent to mining;
- the ability to meet energy requirements while complying with greenhouse gas emissions regulations and other energy transition policy changes and laws in the countries in which we operate;
- severe natural disasters, such as storms and earthquakes, disrupting our operations;
- operational risks, such as operator errors, mechanical failures and other accidents;
- the availability of materials, supplies, insurance coverage, equipment, required permits or approvals and financing;

- supply-chain and logistic related interruptions, including impacts to international freight and transportation networks;
- the implementation of our growth strategy and risks associated with related capital expenditures;
- failure to obtain financial assurance to meet closure and remediation obligations;
- the possible material differences between our estimates of mineral reserves and mineral resources and the mineral quantities we actually recover;
- the possibility that our concessions may be terminated or not renewed by governmental authorities in the countries in which we operate;
- the impact of political and government changes in the countries in which we operate, and the effects of potential new legislation and changes in taxation;
- labor disputes or disagreements with local communities in the countries in which we operate;
- loss of reputation due to unanticipated operational failures or significant occupational incidents;
- failure or outage of our digital infrastructure or information and operating technology systems;
- cyber events or attacks (including ransomware, state-sponsored and other cyberattacks) due to negligence or IT security failures;
- the future impact of competition and changes in domestic and international governmental and regulatory policies that apply to our operations;
- currency exchange rate and interest rate fluctuations; and
- other factors.

For a broader discussion of risks please refer to our annual report on form 20-F filed with the SEC (www.sec.gov), on SEDAR (www.sedar.com) and available on the Company's website (www.nexaresources.com).

Use of Non-IFRS Financial Measures

Nexa's management uses non-IFRS measures such as Adjusted EBITDA, cash cost net of by-products, all-in sustaining cost net of by-products, among other measures, for internal planning and performance measurement purposes. We believe these measures provide useful information about the financial performance of our operations that facilitates period-to-period comparisons on a consistent basis. Management uses Adjusted EBITDA internally to evaluate our underlying operating performance for the reporting periods presented and to assist with the planning and forecasting of future operating results. Management believes that Adjusted EBITDA is a useful measure of our performance because it reflects our cash generation potential from our operational activities excluding impairment of non-current assets and other miscellaneous adjustments, if any. These measures should not be considered in isolation or as a substitute for profit (loss) or operating profit, as indicators of operating performance, or as alternatives to cash flow as measures of liquidity. Additionally, our calculation of Adjusted EBITDA may be different from the calculation used by other companies, including our competitors in the mining industry, so our measures may not be comparable to those of other companies.

Segment performance is measured based on Adjusted EBITDA, since financial results, comprising financial income and expenses and foreign exchange, and income taxes are managed at the corporate level and are not allocated to operating segments. Adjusted EBITDA is defined as net income (loss) for the period, adjusted by (i) share in the results of associates, (ii) depreciation and amortization, (iii) net financial results, (iv) income tax, (v) gain (loss) on sale of investments, (vi) impairment and impairment reversals, (vii) gain (loss) on sale of long-lived assets, (viii) write-offs of long-lived assets, and (ix) remeasurement in estimates of asset retirement obligations. In addition, management may

adjust the effect of certain types of transactions that in management's judgment are not indicative of the Company´s normal operating activities, or do not necessarily occur on a regular basis.

Mining segment | Cash cost net of by-product credits: for our mining operations, cash cost after byproduct credits includes all direct costs associated with mining, concentrating, leaching, solvent extraction, on-site administration and general expenses, any off-site services essential to the operation, concentrate freight costs, marketing costs and property and severance taxes paid to state or federal agencies that are not profit-related. Treatment and refining charges on metal sales, which are typically recognized as a deduction component of sales revenues, are added to cash cost. Cash cost net of by-products credits is measured with respect to zinc sold per mine.

Mining segment | Cost ROM: includes all direct production costs for mining, concentrating, leaching, on-site mineral transportation, and other on-site administration expenses, excluding royalties and workers participation costs. Cost ROM is measured with respect to total treated ore volume and non-metallic products revenue (such as limestone and stones) are considered as cost-reduction for our mining operations.

Smelting segment | Cash cost net of by-product credits: for our smelting operations, cash cost, after by-product credits includes all the costs of smelting, including costs associated with labor, net energy, maintenance, materials, consumables and other on-site costs, as well as raw material costs. Cash cost net of by-products credits is measured with respect to zinc sold per smelter.

Smelting segment | Conversion cost: costs incurred to convert zinc concentrate (feed) into final products measured with respect to contained zinc sold per smelter, including energy, consumables, and other fixed and on-site expenses. Conversion cost does not include raw material, alloys, and by-products related cost.

Net debt: defined as (i) loans and financing (the most comparable IFRS measure), less (ii) cash and cash equivalents, less (iii) financial investments, plus or less (iv) the fair value of derivative financial instruments, plus (v) leases liabilities. Our management believes that net debt is an important figure because it indicates our ability to repay outstanding debts that become due simultaneously using available cash and highly liquid assets.

All forward-looking non-IFRS financial measures in this release, including cash cost guidance, are provided only on a non-IFRS basis. This is due to the inherent difficulty of forecasting the timing or amount of items that would be included in the most directly comparable forward-looking IFRS financial measures. As a result, reconciliation of the forward-looking non-IFRS financial measures to IFRS financial measures is not available without unreasonable effort and the Company is unable to assess the probable significance of the unavailable information.

See "Cautionary Statement on Forward-Looking Statements" below.

Technical information

Jose Antonio Lopes, MausIMM CP (Geo): 224829, a mineral resources manager, a qualified person for purposes of National Instrument 43-101 and a Nexa employee, has approved the scientific and technical information contained in this Earnings Release. Please note that the mineral reserves included in this Earnings Release were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") 2014 Definition Standards For Mineral Resources and Mineral Reserves, whose definitions are incorporated by reference in National Instrument 43-101. Accordingly, such information may not be comparable to similar information prepared in accordance with Subpart 1300 of Regulation S-K ("S-K 1300"). For a discussion of the differences between the requirements under S-K 1300 and NI 43-101, please see our annual report on Form 20-F. Our estimates of mineral reserves may be materially different from mineral quantities we actually recover, and market price fluctuations and changes in operating capital costs may render certain mineral reserves uneconomical to mine.

CAUTIONARY STATEMENT ON FORWARD-LOOKING STATEMENTS

This Earnings Release contains certain forward-looking information and forward-looking statements as defined in applicable securities laws (collectively referred to in this Earnings Release as "forward-looking statements"). All statements other than statements of historical fact are forward-looking statements. The words "believe," "will," "may," "may have," "would," "estimate," "continues," "anticipates," "intends," "plans," "expects," "budget," "scheduled," "forecasts" and similar words are intended to identify estimates and forward-looking statements. Forward-looking statements are not guarantees and involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of NEXA to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Actual results and developments may be substantially different from the expectations described in the forward-looking statements for a number of reasons, many of which are not under our control, among them, the activities of our competition, the future global economic situation, weather conditions, market prices and conditions, exchange rates, and operational and financial risks. The unexpected occurrence of one or more of the abovementioned events may significantly change the results of our operations on which we have based our estimates and forward-looking statements. Our estimates and forward-looking statements may also be influenced by, among others, legal, political, environmental or other risks that could materially affect the potential development of our projects, including risks related to outbreaks of contagious diseases or health crises impacting overall economic activity regionally or globally.

These forward-looking statements related to future events or future performance and include current estimates, predictions, forecasts, beliefs and statements as to management's expectations with respect to, but not limited to, the business and operations of the Company and mining production our growth strategy, the impact of applicable laws and regulations, future zinc and other metal prices, smelting sales, CAPEX, expenses related to exploration and project evaluation, estimation of mineral reserves and mineral resources, mine life and our financial liquidity.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable and appropriate by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies and may prove to be incorrect. Statements concerning future production costs or volumes are based on numerous assumptions of management regarding operating matters and on assumptions that demand for products develops as anticipated, that customers and other counterparties perform their contractual obligations, full integration of mining and smelting operations, that operating and capital plans will not be disrupted by issues such as mechanical failure, unavailability of parts and supplies, labor disturbances, interruption in transportation or utilities, adverse weather conditions, and other COVID-19 related impacts, and that there are no material unanticipated variations in metal prices, exchange rates, or the cost of energy, supplies or transportation, among other assumptions.

We assume no obligation to update forward-looking statements except as required under securities laws. Estimates and forward-looking statements refer only to the date when they were made, and we do not undertake any obligation to update or revise any estimate or forward-looking statement due to new information, future events or otherwise, except as required by law. Estimates and forward-looking statements involve risks and uncertainties and do not guarantee future performance, as actual results or developments may be substantially different from the expectations described in the forward-looking statements. Further information concerning risks and uncertainties associated with these forward-looking statements and our business can be found in our annual report on Form 20-F and in our other public disclosures available on our website and filed under our profile on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov).

UPCOMING EVENT

Earnings Conference Call

Date: Thursday, February 16, 2023 – 8:30am (EST)

Dial In

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Live audio webcast with slide presentation

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Income Statement

US$ million	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22
Net Revenue	**602.9**	**686.2**	**655.1**	**677.9**	**722.1**	**829.4**	**702.6**	**779.8**
Cost of sales	(428.9)	(469.3)	(507.0)	(583.8)	(524.8)	(556.3)	(617.8)	(696.2)
SG&A	(30.5)	(30.8)	(33.0)	(39.6)	(36.0)	(37.1)	(31.6)	(40.8)
Mineral exploration and project evaluation	(14.3)	(18.5)	(20.7)	(31.6)	(17.2)	(26.8)	(27.4)	(27.4)
Impairment of non-current assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(32.5)
Other income and expenses, net	(8.5)	2.9	(7.1)	44.6	(20.9)	30.4	12.8	(25.0)
Share in the results of associates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Net financial result	**(74.2)**	**32.3**	**(56.6)**	**(38.4)**	**10.7**	**(74.2)**	**(52.3)**	**(17.9)**
Financial income	1.9	2.0	3.5	4.0	3.7	8.4	6.7	6.2
Financial expenses	(34.2)	(35.3)	(37.6)	(35.2)	(43.4)	(40.3)	(41.6)	(43.4)
Other financial items, net	(41.9)	65.5	(22.5)	(7.3)	50.3	(42.3)	(17.4)	19.4
Depreciation, amortization and depletion	59.2	62.2	68.5	68.9	65.9	74.4	72.8	77.9
Adjusted EBITDA	**179.0**	**233.3**	**178.3**	**153.2**	**216.7**	**302.4**	**121.1**	**120.2**
Adj. EBITDA margin	**29.7%**	**34.0%**	**27.2%**	**22.6%**	**30.0%**	**36.5%**	**17.2%**	**15.4%**
Income Tax	(15.0)	(80.6)	(39.8)	(17.8)	(59.6)	(41.8)	(26.2)	(23.3)
Net income (loss)	**31.6**	**122.2**	**(9.0)**	**11.4**	**74.2**	**123.5**	**(39.9)**	**(81.4)**
Attributable to Nexa's shareholders	22.8	109.0	(18.8)	1.4	63.0	109.0	(41.2)	(81.7)
Attributable to non-controlling interests	8.8	13.1	9.8	10.0	11.2	14.5	1.4	0.3
Weighted average number of outstanding shares - in thousand	132,439	132,439	132,439	132,439	132,439	132,439	132,439	132,439
Basic and diluted earnings (loss) per share - (in US$)	**0.17**	**0.82**	**(0.14)**	**0.01**	**0.48**	**0.82**	**(0.31)**	**(0.62)**

Adjusted EBITDA Reconciliation

In December 2022, the Company revised its Adjusted EBITDA methodology to provide more clarity for operational and financial performance, and their respective analyses. Certain items were excluded, and Adjusted EBITDA was defined as a net income (loss) for the year, adjusted by (i) share in the results of associates, (ii) depreciation and amortization, (iii) net financial results, (iv) income tax, (v) (loss) gain on sale of investments, (vi) impairment and impairment reversals, (vii) gain or loss on sale and/or loss in write-offs of long-lived assets; and (viii) remeasurement in estimates of asset retirement obligations. In addition, management may adjust the effect of certain types of transactions that in its judgment are not indicative of the Company´s normal operating activities, or do not necessarily occur on a regular basis. For further information, please refer to note 2 – Information by business segment: Accounting policy in the "Consolidated financial statements at December 31, 2022".

US$ million	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	2021	2022
Mining										
EBITDA	**97.3**	**141.4**	**92.4**	**110.1**	**108.1**	**173.3**	**53.4**	**(5.9)**	**441.2**	**328.8**
Fair value of offtake agreement	0.0	0.0	0.0	0.0	19.4	(28.2)	(7.8)	(7.7)	0.0	(24.3)
Impairment loss of long-lived assets	0.0	0.0	0.0	0.0	0.0	0.0	(0.3)	32.5	0.0	32.3
Impairment of other assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	0.0	9.3
Other adjustments	0.0	0.0	(0.3)	(0.3)	0.0	0.0	0.0	0.0	(0.7)	0.0
Adjusted EBITDA (Previous) (1)	**97.3**	**141.4**	**92.1**	**109.8**	**127.5**	**145.1**	**45.4**	**28.2**	**440.6**	**346.2**
Aripuanã pre-operating expenses and ramp-up impacts (2)	0.4	1.1	3.3	4.0	9.7	18.9	12.1	46.8	8.8	87.5
Loss on sale of property, plant and equipment	(0.2)	0.8	0.5	0.6	0.1	(0.1)	0.6	(0.1)	1.7	0.5
Remeasurement in estimates of asset retirement obligations	(0.7)	(0.1)	(0.3)	7.4	(1.1)	(2.0)	(4.9)	3.1	6.4	(4.9)
Remeasurement adjustment of streaming agreement	0.0	0.0	19.6	0.0	0.0	0.0	10.6	0.0	19.6	10.6
Adjusted EBITDA	**96.8**	**143.3**	**115.1**	**121.7**	**136.2**	**161.9**	**63.7**	**78.0**	**476.9**	**439.8**
Smelting										
EBITDA	**83.6**	**92.5**	**64.8**	**26.9**	**82.4**	**140.5**	**58.9**	**45.4**	**267.7**	**327.3**
Impairment loss of long-lived assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Adjusted EBITDA (Previous) (1)	**83.6**	**92.5**	**64.8**	**26.9**	**82.4**	**140.5**	**58.9**	**45.7**	**267.7**	**327.5**
Loss on sale of property, plant and equipment	(0.2)	(0.8)	(0.0)	4.3	(0.0)	(0.0)	0.0	0.3	3.2	0.2
Remeasurement in estimates of asset retirement obligations	(0.2)	(0.3)	(0.2)	0.7	(0.4)	(0.2)	(0.6)	(0.0)	0.0	(1.3)
Adjusted EBITDA	**83.1**	**91.3**	**64.6**	**31.9**	**81.9**	**140.2**	**58.3**	**45.9**	**270.9**	**326.4**

(1) Previous refers to former Adjusted EBITDA based on previous definition.

(2) Aripuanã adjustments in 2022 includes US$35.8 million of net realized value, US$9.8 million of idleness cost and US$41.9 million of other operating expenses. As Aripuanã continues its ramp-up activities, Nexa may experience additional ramp-up impacts, including additional non-cash inventories net realizable write-downs in 2023.

US$ million	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	2021	2022
Consolidated										
EBITDA	**180.0**	**232.7**	**155.8**	**136.5**	**189.1**	**314.0**	**111.4**	**35.8**	**704.9**	**650.2**
Fair value of offtake agreement	0.0	0.0	0.0	0.0	19.4	(28.2)	(7.8)	(7.7)	0.0	(24.3)
Impairment loss of long-lived assets	0.0	0.0	0.0	0.0	0.0	0.0	(0.3)	32.8	0.0	32.5
Impairment of other assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	0.0	9.3
Other adjustments	0.0	0.0	(0.3)	(0.3)	0.0	0.0	0.0	0.0	(0.7)	0.0
Adjusted EBITDA (Previous) [1]	**180.0**	**232.7**	**155.4**	**136.2**	**208.5**	**285.8**	**103.3**	**70.2**	**704.2**	**667.7**
Aripuanã pre-operating expenses and ramp-up impacts [2]	0.4	1.1	3.3	4.0	9.7	18.9	12.1	46.8	8.8	87.5
Loss on sale of property, plant and equipment	(0.4)	(0.0)	0.4	4.9	0.1	(0.1)	0.6	0.2	4.9	0.7
Remeasurement in estimates of asset retirement obligations	(1.0)	(0.4)	(0.4)	8.2	(1.5)	(2.2)	(5.5)	3.0	6.4	(6.2)
Remeasurement adjustment of streaming agreement	0.0	0.0	19.6	0.0	0.0	0.0	10.6	0.0	19.6	10.6
Adjusted EBITDA	**179.0**	**233.3**	**178.3**	**153.2**	**216.7**	**302.4**	**121.1**	**120.2**	**743.8**	**760.3**

Net cash flows from operating activities excluding working capital changes and free cash flow - Reconciliation

Nexa manages and reports cash flows from operating activities excluding changes in working capital. Working capital can be volatile due to several factors, including prices and a build-up or reduction of inventories.

Furthermore, we also exclude from the analysis interest and income tax payments. Management believes by excluding these measures provides investors a better visibility of the operating cash flow performance and our capital allocation strategy.

The following table provides a reconciliation of the cash from operating activities before changes in working capital to free cash flow.

US$ million	4Q22	2022
Cash provided by operating activities	**141**	**499**
(-) Working capital changes	(1)	(203)
Trade accounts receivables	(69)	2
Inventory	47	(75)
Other assets	(34)	(65)
Payables	26	(49)
Other liabilities	30	(17)
Cash flows from operations excluding working capital changes	**141**	**702**
Interest paid	(21)	(114)
Income tax	(14)	(119)
Sustaining CAPEX [1]	(94)	(280)
Net cash flows from operations excluding working capital changes	**12**	**190**
Other investments [2]	(18)	(41)
Aripuanã project	(3)	(66)
Loans and investments [3]	(1)	(67)
Dividends and share premium	(13)	(75)
Foreign exchange effects	3	16
Working capital changes	(1)	(203)
Free cash flow	**(20)**	**(246)**

[1] Non expansion investments related to sustaining and HSE. [2] Other non-expansion investments. Refer to page 8 of this earnings release for CAPEX breakdown.

[3] Loans and financing, bonds repurchase and net sales of financial investments.

For details on cash flows, please refer to the "Consolidated financial statements at December 31, 2022".

Foreign Exchange & LME Prices

	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21	1Q21	2021	2022
LME Prices (US$/t)										
Zinc	3,001	3,271	3,915	3,754	3,364	2,991	2,916	2,750	3,007	3,478
Copper	8,001	7,745	9,513	9,997	9,699	9,372	9,700	8,504	9,317	8,797
Lead	2,098	1,976	2,199	2,335	2,331	2,340	2,128	2,018	2,206	2,150
FX										
BRL/USD	5.255	5.246	4.926	5.230	5.586	5.228	5.290	5.483	5.395	5.165

Capex

US$ million	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21	1Q21	2021	2022
Mining	**55.6**	**37.1**	**28.2**	**25.2**	**49.0**	**34.7**	**34.5**	**23.5**	**141.6**	**146.1**
Cerro Lindo	14.9	9.6	10.1	7.8	17.1	10.1	9.0	4.4	40.5	42.5
El Porvenir	16.9	9.5	5.3	5.0	11.4	7.9	8.3	9.0	36.5	36.7
Atacocha	1.1	0.5	0.7	2.0	2.6	2.5	4.6	1.9	11.6	4.5
Vazante	20.6	16.4	9.6	9.0	14.9	12.3	10.7	7.5	45.4	55.6
Morro Agudo	2.1	1.0	2.4	1.3	3.1	1.9	1.9	0.6	7.6	6.8
Smelting	**30.7**	**30.7**	**33.2**	**15.4**	**28.8**	**22.9**	**16.2**	**8.3**	**76.3**	**109.9**
CJM	12.9	12.2	14.5	5.7	13.9	10.4	9.7	5.6	39.6	45.3
Três Marias	12.2	11.9	11.9	6.0	8.0	4.9	3.2	1.6	17.7	42.1
Juiz de Fora	5.5	6.5	6.8	3.6	6.9	7.6	3.4	1.1	19.0	22.4
Other	**29.5**	**17.2**	**36.5**	**42.0**	**86.4**	**86.1**	**65.5**	**52.0**	**290.0**	**125.3**
Total	**115.8**	**85.0**	**97.9**	**82.5**	**164.2**	**143.7**	**116.2**	**83.8**	**507.9**	**381.2**

Sustaining (US$ million)	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21	1Q21	2021	2022
Mining	**45.8**	**29.3**	**26.1**	**22.8**	**39.6**	**25.4**	**29.3**	**21.5**	**115.8**	**124.1**
Cerro Lindo	12.8	8.6	9.4	7.3	15.2	9.2	7.8	4.4	36.6	38.1
El Porvenir	16.6	9.4	5.1	4.7	10.2	6.0	8.1	8.6	32.9	35.7
Atacocha	1.1	0.5	0.8	2.0	2.4	2.4	4.4	2.0	11.1	4.4
Vazante	13.4	9.9	8.6	7.7	9.2	6.0	7.2	6.1	28.6	39.5
Morro Agudo	1.9	0.9	2.3	1.1	2.5	1.7	1.8	0.5	6.6	6.3
Smelting	**16.7**	**18.3**	**23.8**	**9.7**	**20.2**	**17.0**	**14.9**	**7.2**	**59.2**	**68.5**
CJM	10.2	10.0	13.1	5.2	12.1	8.3	9.8	5.3	35.5	38.5
Três Marias	2.8	2.8	5.5	2.6	3.7	3.2	2.3	1.0	10.2	13.7
Juiz de Fora	3.7	5.4	5.2	2.0	4.4	5.5	2.8	0.9	13.5	16.3
Total Operations Sustaining	**62.5**	**47.6**	**49.9**	**32.5**	**59.8**	**42.3**	**44.3**	**28.7**	**175.0**	**192.5**
Total Corporate Sustaining	**17.6**	**11.1**	**11.0**	**7.4**	**4.0**	**2.4**	**7.2**	**0.4**	**14.0**	**47.2**

Sustaining Capex Guidance 2023

Sustaining (US$ million)	**2023 Guidance**
Mining	**200.2**
Cerro Lindo	39.3
El Porvenir	61.5
Atacocha	10.7
Vazante	32.1
Morro Agudo	3.1
Aripuanã	53.5
Smelting	**66.0**
Cajamarquilla	30.4
Três Marias	20.2
Juiz de Fora	15.3
Total Operations Sustaining	**266.2**
Total Corporate Sustaining	**1.8**
Total Sustaining	**268.0**

All in Sustaining Cash Cost | Mining [2]

4Q22

	US$ million (excepted indicated otherwise)	Vazante	Morro Agudo	Cerro Lindo	El Porvenir	Atacocha	Consolidation of Operations	Corporate & Others	Mining
	Sales Volume (Zinc content in Products)								
	Tonnes	33,669	4,614	19,903	12,126	2,874	73,187		73,187
(+)	COGS	30.1	18.0	99.0	39.2	23.3	209.6	5.9	215.5
(+)	On-site G&A	0.2	0.1	0.1	0.2	0.1	0.8		0.8
(-)	By-products revenue	(4.7)	(5.5)	(95.8)	(40.5)	(26.1)	(172.6)	(2.3)	(174.8)
(+)	Treatment Charges	24.6	2.5	9.6	6.6	1.6	44.9		44.9
(+)	Selling Expenses	0.2	0.5	(0.1)	(0.2)	0.1	0.5		0.5
(-)	Depreciation, amortization and depletion	(5.5)	(2.0)	(27.3)	(8.2)	(3.9)	(47.0)	0.0	(47.0)
(-)	Royalties	(0.5)	(0.3)	(1.2)	(0.9)	(0.3)	(3.3)		(3.3)
(-)	Workers participation & Bonus	(0.4)	(0.2)	(1.0)	(0.8)	(0.2)	(2.6)		(2.6)
(+)	Others	(1.0)	(0.3)	0.0	4.5	(4.3)	(1.1)		(1.1)
(=)	Cash Cost (Sold)	42.9	12.8	(16.7)	(0.1)	(9.8)	29.2	3.6	32.8
	Cash Cost (Sold) (per ton)	**1,275.1**	**2,776.9**	**(840.4)**	**(6.4)**	**(3,395.9)**	**398.7**	**0.0**	**447.7**
(+)	Sustaining Capital Expenditure	13.6	2.1	14.9	16.9	1.1	48.6	27.4	76.1
(=)	Sustaining Cash Cost (Sold)	56.5	14.9	(1.8)	16.8	(8.6)	77.8	31.0	108.8
	Sustaining Cash Cost (Sold) (per ton)	**1,679.3**	**3,228.6**	**(92.2)**	**1,388.3**	**(2,996.2)**	**1,063.4**	**0.0**	**1,487.0**
(+)	Workers participation & Bonus	0.4	0.2	1.0	0.8	0.2	2.6		2.6
(+)	Royalties	0.5	0.3	1.2	0.9	0.3	3.3		3.3
(+)	Corporate G&A							12.8	12.8
(=)	AISC (Sold)								127.6
(=)	**AISC (Sold) (per ton)**								**1,743.2**
(=)	**AISC (Sold) in US$/lb**								**0.79**

4Q21

	US$ million (excepted indicated otherwise)	Vazante	Morro Agudo	Cerro Lindo	El Porvenir	Atacocha	Consolidation of Operations	Corporate & Others	Mining
	Sales Volume (Zinc content in Products)								
	Tonnes	35,609	4,689	24,693	13,356	2,754	81,101		81,101
(+)	COGS	25.6	14.0	97.4	40.0	12.3	189.3	1.7	191.0
(+)	On-site G&A	0.6	0.3	0.1	0.1	0.1	1.1		1.1
(-)	By-products revenue	(2.8)	(3.3)	(84.6)	(34.9)	(11.5)	(137.0)	0.8	(136.2)
(+)	Treatment Charges	17.3	1.7	10.3	6.5	1.3	37.1		37.1
(+)	Selling Expenses	0.1	0.6	0.7	0.2	0.1	1.7		1.7
(-)	Depreciation, amortization and depletion	(4.8)	(1.3)	(31.3)	(6.7)	(4.0)	(48.1)	0.0	(48.1)
(-)	Royalties	(0.4)	(0.3)		(0.8)	(0.2)	(1.7)		(1.7)
(-)	Workers participation & Bonus	(0.5)	(0.3)	(3.4)	(1.2)	(0.0)	(5.3)		(5.3)
(+)	Others	(1.2)	(0.3)	0.7	1.3	4.3	4.8		4.8
(=)	Cash Cost (Sold)	34.0	11.0	(9.9)	4.4	2.4	41.8	2.5	44.4
	Cash Cost (Sold) (per ton)	**953.8**	**2,345.2**	**(402.7)**	**330.7**	**862.2**	**515.5**	**0.0**	**546.9**
(+)	Sustaining Capital Expenditure	14.5	3.1	17.1	11.4	2.6	48.5	3.3	51.8
(=)	Sustaining Cash Cost (Sold)	48.4	14.1	7.1	15.8	4.9	90.3	5.9	96.2
	Sustaining Cash Cost (Sold) (per ton)	**1,359.8**	**3,007.1**	**288.3**	**1,180.7**	**1,789.1**	**1,113.9**	**0.0**	**1,186.1**
(+)	Workers participation & Bonus	0.5	0.3	3.4	1.2	0.0	5.3		5.3
(+)	Royalties	0.4	0.3	0.0	0.8	0.2	1.7		1.7
(+)	Corporate G&A							16.8	16.8
(=)	AISC (Sold)								120.0
(=)	**AISC (Sold) (per ton)**								**1,480.0**
(=)	**AISC (Sold) in US$/lb**								**0.67**

2022

	US$ million (excepted indicated otherwise)	Vazante	Morro Agudo	Cerro Lindo	El Porvenir	Atacocha	Consolidation of Operations	Corporate & Others	Mining
	Sales Volume (Zinc content in Products)								
	Tonnes	131,527	18,700	85,910	52,001	9,560	297,699	0	297,699
(+)	COGS	116.0	63.8	396.5	167.9	75.4	819.6	(1.8)	817.8
(+)	On-site G&A	1.2	0.8	0.5	0.7	0.3	3.4		3.4
(-)	By-products revenue	(10.3)	(22.6)	(351.2)	(123.3)	(72.2)	(579.7)	11.7	(568.0)
(+)	Treatment Charges	91.3	9.6	39.9	27.6	5.1	173.5		173.5
(+)	Selling Expenses	0.4	1.4	1.8	0.6	0.5	4.7		4.7
(-)	Depreciation, amortization and depletion	(24.0)	(9.1)	(117.0)	(27.2)	(14.9)	(192.1)	(0.0)	(192.2)
(-)	Royalties	(2.1)	(1.4)	(5.6)	(3.8)	(0.9)	(13.8)		(13.8)
(-)	Workers participation & Bonus	(1.6)	(0.9)	(13.3)	(5.2)	(0.8)	(21.8)		(21.8)
(+)	Others	(9.5)	(1.2)	0.2	0.6	(7.3)	(17.3)		(17.3)
(=)	Cash Cost (Sold)	161.4	40.4	(48.2)	37.8	(15.0)	176.5	9.9	186.4
	Cash Cost (Sold) (per ton)	**1,227.5**	**2,160.5**	**(561.4)**	**727.7**	**(1,566.2)**	**592.8**	**0.0**	**626.0**
(+)	Sustaining Capital Expenditure	41.9	6.8	42.5	36.7	4.5	132.4	69.4	201.8
(=)	Sustaining Cash Cost (Sold)	203.4	47.2	(5.8)	74.6	(10.5)	308.9	79.3	388.2
	Sustaining Cash Cost (Sold) (per ton)	**1,546.2**	**2,523.8**	**(67.1)**	**1,433.6**	**(1,096.6)**	**1,037.5**	**0.0**	**1,304.0**
(+)	Workers participation & Bonus	1.6	0.9	13.3	5.2	0.8	21.8		21.8
(+)	Royalties	2.1	1.4	5.6	3.8	0.9	13.8		13.8
(+)	Corporate G&A							52.0	52.0
(=)	AISC (Sold)								475.8
(=)	**AISC (Sold) (per ton)**								**1,598.1**
(=)	**AISC (Sold) in US$/lb**								**0.72**

Note: Cash cost and AISC per ton sold does not include the impact of the cost of idleness capacity of US$4.4 million in Vazante in 2022, and US$2.0 million in Atacocha in 2022.

2021

	US$ million (excepted indicated otherwise)	Vazante	Morro Agudo	Cerro Lindo	El Porvenir	Atacocha	Consolidation of Operations	Corporate & Others	Mining
	Sales Volume (Zinc content in Products)								
	Tonnes	140,500	17,278	103,848	51,382	7,747	320,756	0	320,756
(+)	COGS	95.5	49.7	376.9	147.7	50.0	719.8	6.8	726.7
(+)	On-site G&A	1.8	1.1	0.2	0.3	0.1	3.6	0.0	3.6
(-)	By-products revenue	(13.0)	(17.6)	(358.2)	(105.0)	(49.9)	(543.6)	(0.0)	(543.7)
(+)	Treatment Charges	70.9	6.6	55.1	27.2	4.2	164.0	0.0	164.0
(+)	Selling Expenses	0.5	1.9	1.9	0.7	0.3	5.3	0.0	5.3
(-)	Depreciation, amortization and depletion	(20.1)	(5.5)	(112.6)	(25.9)	(11.2)	(175.4)	0.5	(174.9)
(-)	Royalties	(1.6)	(1.0)	0.0	(2.3)	(0.7)	(5.5)	0.0	(5.5)
(-)	Workers participation & Bonus	(1.6)	(0.9)	(18.4)	(3.8)	(0.2)	(25.0)	0.0	(25.0)
(+)	Others	(5.9)	(1.6)	(0.0)	3.8	3.1	(0.6)	0.0	(0.6)
(=)	Cash Cost (Sold)	126.5	32.6	(55.1)	42.8	(4.3)	142.4	7.4	149.8
	Cash Cost (Sold) (per ton)	**900.2**	**1,884.1**	**(530.1)**	**832.2**	**(557.7)**	**444.0**	**0.0**	**466.9**
(+)	Sustaining Capital Expenditure	42.0	7.6	40.5	36.5	11.6	138.2	23.8	162.0
(=)	Sustaining Cash Cost (Sold)	168.4	40.1	(14.5)	79.3	7.2	280.6	31.1	311.7
	Sustaining Cash Cost (Sold) (per ton)	**1,198.8**	**2,322.5**	**(139.6)**	**1,543.3**	**935.2**	**874.8**	**0.0**	**971.9**
(+)	Workers participation & Bonus	1.6	0.9	18.4	3.8	0.2	25.0		25.0
(+)	Royalties	1.6	1.0	0.0	2.3	0.7	5.5		5.5
(+)	Corporate G&A							54.2	54.2
(=)	AISC (Sold)								396.5
(=)	**AISC (Sold) (per ton)**								**1,236.1**
(=)	**AISC (Sold) in US$/lb**								**0.56**

Note: Cash cost and AISC per ton sold does not include the impact of the cost of idleness capacity of US$3.5 million in Atacocha and US$1.3 million in Vazante in 2021.

Conversion and All in Sustaining Cash Cost | Smelting [2]

4Q22

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Consolidation of Operations	Corporate	Smelting
	Sales Volume (Zinc content in Products)						
	Tonnes	50,489	21,620	92,744	164,853		164,853
(+)	COGS	145.7	78.6	317.1	541.4	(1.7)	539.6
(-)	Cost of freight	(5.2)	(2.2)	(15.0)	(22.4)		(22.4)
(+)	On-site G&A	0.4	0.3	1.1	1.8	0.0	1.8
(-)	Depreciation, amortization and depletion	(4.4)	(3.1)	(10.2)	(17.7)		(17.7)
(-)	By-products revenue	(2.8)	(7.3)	(52.8)	(62.9)	1.7	(61.1)
(-)	Workers participation & Bonus	(0.5)	(0.4)	(2.9)	(3.8)		(3.8)
(+)	Others	(2.5)	(1.5)	4.5	0.5		0.5
(=)	Cash Cost (Sold)	130.7	64.5	241.7	436.9	0.0	436.9
	Cash Cost (Sold) (per ton)	**2,588.2**	**2,981.6**	**2,606.5**	**2,650.1**		**2,650.1**
(+)	Sustaining Capital Expenditure	12.2	5.5	12.9	30.7	(5.2)	25.5
(=)	Sustaining Cash Cost (Sold)	142.9	70.0	254.7	467.6	(5.2)	462.4
	Sustaining Cash Cost (Sold) (per ton)	**2,830.7**	**3,237.0**	**2,745.7**	**2,836.2**		**2,804.9**
(+)	Workers participation & Bonus	0.5	0.4	2.9	3.8		3.8
(+)	Corporate G&A					8.4	8.4
(=)	AISC (Sold)						474.6
(=)	**AISC (Sold) (per ton)**						**2,878.8**
(=)	**AISC (Sold) in US$/lb**						**1.31**

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Smelting
	Contained Zinc Sales				
	Tonnes	45,183	22,129	91,454	158,766
	COGS	153.2	88.4	336.7	578.3
(-)	Raw Material	(109.7)	(60.6)	(238.3)	(408.6)
(+)	By product cost	(14.0)	(0.6)	(6.5)	(21.0)
(+/-)	Consolidation effects	1.8	0.3	(40.5)	(38.5)
(+)	Others	(12.0)	(9.3)	1.5	(19.7)
(=)	Conversion Cost	19.3	18.2	52.9	90.4
(=)	**Conversion Cost in US$/t**	**428.2**	**822.6**	**578.3**	**569.6**
(=)	**Conversion Cost in US$/lb**	**0.19**	**0.37**	**0.26**	**0.26**

Note: Cash cost and AISC per ton sold does not include the impact of the cost of metal purchased for resale.

4Q21

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Consolidation of Operations	Corporate	Smelting
	Sales Volume (Zinc content in Products)						
	Tonnes	44,390	20,595	85,162	150,147		150,147
(+)	COGS	148.5	63.4	323.6	535.4	(1.5)	534.0
(-)	Cost of freight	(10.3)	(0.5)	(10.8)	(21.6)		(21.6)
(+)	On-site G&A	0.6	0.4	1.1	2.0	0.0	2.0
(-)	Depreciation, amortization and depletion	(2.6)	(2.6)	(13.1)	(18.4)		(18.4)
(-)	By-products revenue	(3.8)	(6.4)	(29.6)	(39.8)	1.5	(38.4)
(-)	Workers participation & Bonus	(0.4)	(0.4)	(8.8)	(9.6)		(9.6)
(+)	Others	(4.1)	(2.7)	(16.1)	(22.9)		(22.9)
(=)	Cash Cost (Sold)	127.8	51.1	246.1	425.1	0.0	425.1
	Cash Cost (Sold) (per ton)	**2,879.6**	**2,482.9**	**2,890.2**	**2,831.2**		**2,831.2**
(+)	Sustaining Capital Expenditure	8.0	6.9	13.8	28.7	(1.4)	27.3
(=)	Sustaining Cash Cost (Sold)	135.8	58.1	259.9	453.8	(1.4)	452.4
	Sustaining Cash Cost (Sold) (per ton)	**3,059.8**	**2,819.8**	**3,051.9**	**3,022.4**		**3,012.9**
(+)	Workers participation & Bonus	0.4	0.4	8.8	9.6		9.6
(+)	Corporate G&A					5.6	5.6
(=)	AISC (Sold)						467.6
(=)	**AISC (Sold) (per ton)**						**3,114.3**
(=)	**AISC (Sold) in US$/lb**						**1.41**

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Smelting
	Contained Zinc Sales				
	Tonnes	44,390	20,595	85,162	150,147
	COGS	148.5	63.4	323.6	535.4
(-)	Raw Material	(115.1)	(44.1)	(213.2)	(372.5)
(+)	By product cost	(11.8)	(0.9)	(5.7)	(18.3)
(+/-)	Consolidation effects	(0.5)	3.1	(52.9)	(50.2)
(+)	Others	(8.7)	(8.2)	(2.0)	(18.9)
(=)	Conversion Cost	12.4	13.4	49.7	75.5
(=)	**Conversion Cost in US$/t**	**280.0**	**648.6**	**583.3**	**502.6**
(=)	**Conversion Cost in US$/lb**	**0.13**	**0.29**	**0.26**	**0.23**

Note: Cash cost and AISC per ton sold does not include the impact of the cost of metal purchased for resale.

2022

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Consolidation of Operations	Corporate	Smelting
	Sales Volume (Zinc content in Products)						
	Tonnes	180,029	83,084	334,076	597,189		597,189
(+)	COGS	621.4	325.2	1,219.4	2,166.1	(6.1)	2,159.9
(-)	Cost of freight	(19.5)	(9.9)	(57.0)	(86.4)		(86.4)
(+)	On-site G&A	2.0	1.1	6.1	9.2		9.2
(-)	Depreciation, amortization and depletion	(18.4)	(13.1)	(47.2)	(78.7)		(78.7)
(-)	By-products revenue	(9.5)	(36.8)	(180.4)	(226.7)	6.1	(220.5)
(-)	Workers participation & Bonus	(1.6)	(1.3)	(13.7)	(16.6)		(16.6)
(+)	Others	(13.5)	(6.0)	14.7	(4.8)		(4.8)
(=)	Cash Cost (Sold)	561.0	259.1	941.9	1,761.9		1,761.9
	Cash Cost (Sold) (per ton)	**3,116.0**	**3,118.1**	**2,819.5**	**2,950.4**		**2,950.4**
(+)	Sustaining Capital Expenditure	42.1	22.4	45.3	109.9	(18.9)	90.9
(=)	Sustaining Cash Cost (Sold)	603.1	281.5	987.2	1,871.8	(18.9)	1,852.9
	Sustaining Cash Cost (Sold) (per ton)	**3,350.1**	**3,387.9**	**2,955.1**	**3,134.4**		**3,102.7**
(+)	Workers participation & Bonus	1.6	1.3	13.7	16.6		16.6
(+)	Corporate G&A					31.0	31.0
(=)	AISC (Sold)						1,900.6
(=)	**AISC (Sold) (per ton)**						**3,182.5**
(=)	**AISC (Sold) in US$/lb**						**1.44**

Note: Cash cost and AISC per ton sold does not include the impact of the cost of idleness capacity of US$2.3 million in Três Marias in 2022.

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Smelting
	Contained Zinc Sales				
	Tonnes	45,183	22,129	91,454	158,766
	COGS	153.2	88.4	336.7	578.3
(-)	Raw Material	(109.7)	(60.6)	(238.3)	(408.6)
(+)	By product cost	(14.0)	(0.6)	(6.5)	(21.0)
(+/-)	Consolidation effects	1.8	0.3	(40.5)	(38.5)
(+)	Others	(12.0)	(9.3)	1.5	(19.7)
(=)	Conversion Cost	19.3	18.2	52.9	90.4
(=)	**Conversion Cost in US$/t**	**428.2**	**822.6**	**578.3**	**569.6**
(=)	**Conversion Cost in US$/lb**	**0.19**	**0.37**	**0.26**	**0.26**

Note: Cash cost and AISC per ton sold does not include the impact of the cost of metal purchased for resale.

2021

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Consolidation of Operations	Corporate	Smelting
	Sales Volume (Zinc content in Products)						
	Tonnes	188,216	80,008	324,973	593,197	0	593,197
(+)	COGS	526.6	229.7	1,038.6	1,794.9	(2.7)	1,792.2
(-)	Cost of freight	(21.2)	(2.8)	(36.3)	(60.2)	0.0	(60.2)
(+)	On-site G&A	1.7	1.3	8.2	11.2	0.0	11.2
(-)	Depreciation, amortization and depletion	(13.1)	(11.7)	(54.1)	(78.9)	0.0	(78.9)
(-)	By-products revenue	(11.9)	(23.0)	(91.1)	(126.0)	3.9	(122.1)
(-)	Workers participation & Bonus	(1.3)	(1.2)	(10.3)	(12.8)	0.0	(12.8)
(+)	Others	(18.7)	(10.1)	(22.3)	(51.1)	0.0	(51.1)
(=)	Cash Cost (Sold)	462.1	182.2	832.7	1,477.0	1.2	1,478.2
	Cash Cost (Sold) (per ton)	**2,455.4**	**2,277.4**	**2,562.3**	**2,490.0**		**2,492.0**
(+)	Sustaining Capital Expenditure	17.7	19.0	39.3	76.0	(1.3)	74.8
(=)	Sustaining Cash Cost (Sold)	479.8	201.3	872.0	1,553.1	(0.1)	1,553.0
	Sustaining Cash Cost (Sold) (per ton)	**2,549.2**	**2,515.4**	**2,683.4**	**2,618.2**		**2,618.1**
(+)	Workers participation & Bonus	1.3	1.2	10.3	12.8	0.0	12.8
(+)	Corporate G&A	0.0	0.0	0.0	0.0	29.0	29.0
(=)	AISC (Sold)	0.0	0.0	0.0	0.0	0.0	1,594.9
(=)	**AISC (Sold) (per ton)**						**2,688.6**
(=)	**AISC (Sold) in US$/lb**						**1.22**

	US$ million (excepted indicated otherwise)	Três Marias	Juiz de Fora	Cajamarquilla	Smelting
	Contained Zinc Sales				
	Tonnes	188,216	80,008	324,973	593,197
	COGS	526.6	229.7	1,038.6	1,794.9
(-)	Raw Material	(379.5)	(160.0)	(748.2)	(1,287.8)
(+)	By product cost	(44.7)	(3.1)	(20.3)	(68.2)
(+/-)	Consolidation effects	(15.6)	7.2	(99.6)	(108.0)
(+)	Others	(36.0)	(25.6)	2.7	(58.9)
(=)	Conversion Cost	50.8	48.1	173.1	272.1
(=)	**Conversion Cost in US$/t**	**270.1**	**601.0**	**532.7**	**458.6**
(=)	**Conversion Cost in US$/lb**	**0.12**	**0.27**	**0.24**	**0.21**

Note: Cash cost and AISC per ton sold does not include the impact of the cost of metal purchased for resale.