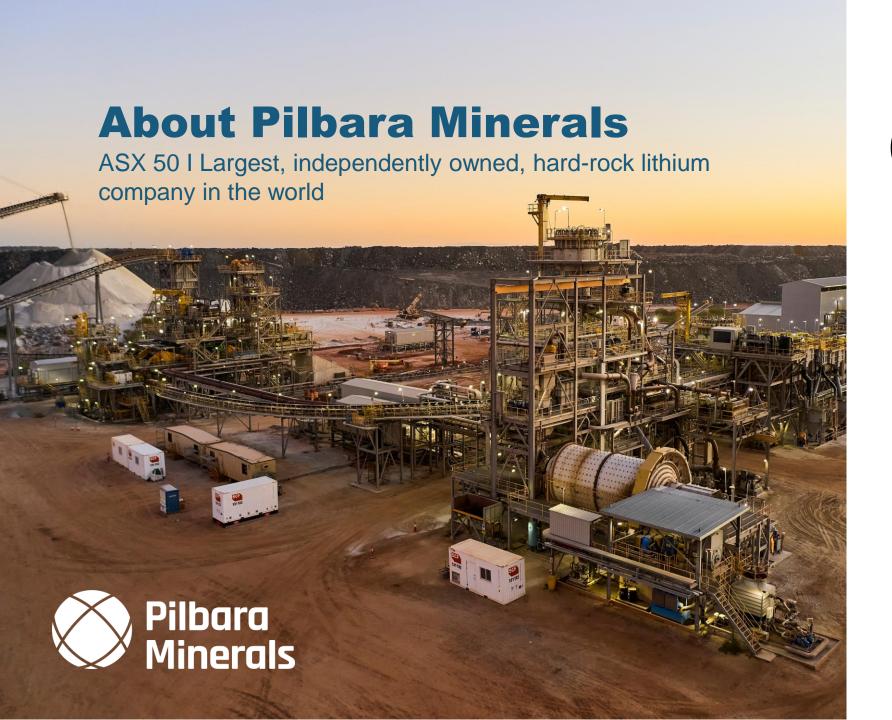
Becoming a leading producer of lithium hydroxide in partnership with POSCO

Tony Kiernan AM Non-Executive Chair ASX: PLS





620,000t spodumene concentrate

produced in FY23

\$14.0B market capitalisation¹

\$3.3B cash balance²

Our Pilgangoora Operation

One of the few 100% owned, major hard-rock lithium producing assets globally

214 Mt³

at 1.2% Li₂O Ore Reserve

Tier 1 asset

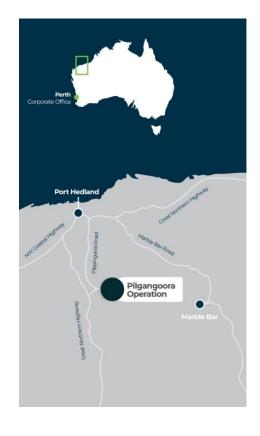
with strong growth potential

35% ore reserve increase FY23 +70% increase in production capacity in construction⁵

~34 year

Two plants

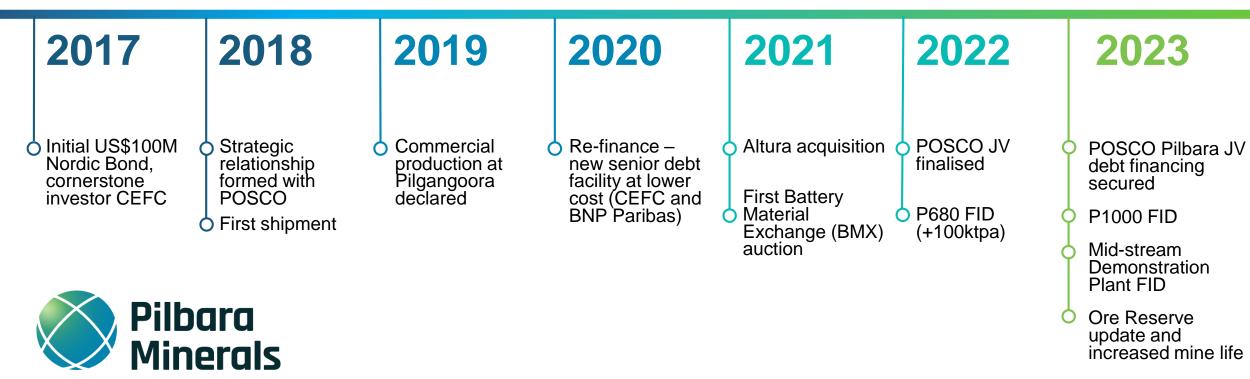
in operation





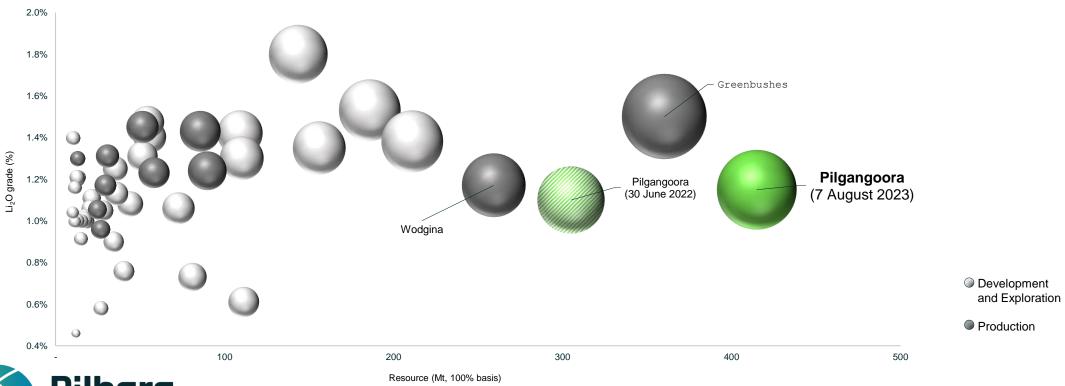
Amazing growth journey with more to come

Major milestones achieved along the way



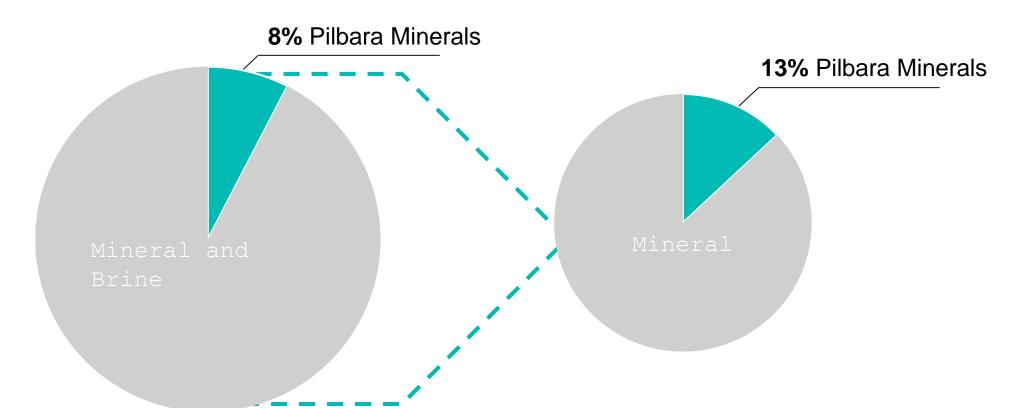
Globally significant lithium resource

Global hard-rock lithium project landscape (bubble size represents Resource lithium carbonate equivalent (LCE)⁶





A major lithium materials supplier



Estimated global mined lithium supply by corporate control, CY23 (mineral & brine, LCE)

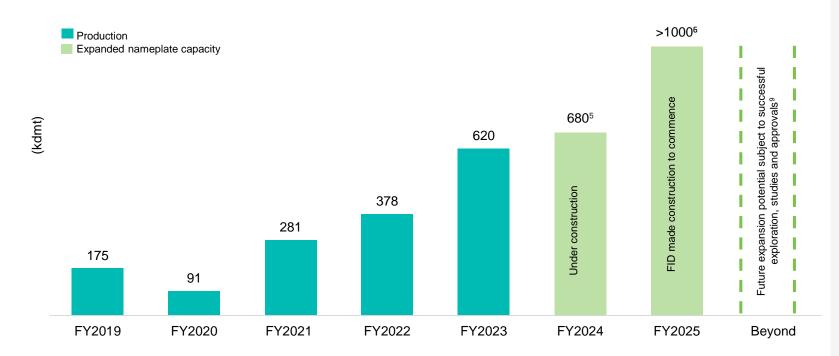
Estimated global mineral lithium supply by corporate control, CY23 (mineral, LCE)



Source: Benchmark Mineral Intelligence June Quarter 2023 data. Charts show market share based on estimated CY2023 global mined lithium output (Mineral & Brine, LCE), operational and highly probable (in construction).

Increasing spodumene production

Rapid growth in production continuing with project expansions underway



~ 70%

increase in production capacity over the next two years⁵

P680 Expansion

680,000 tpa nameplate production⁷

Commissioning from September Quarter 2023

P1000 Expansion

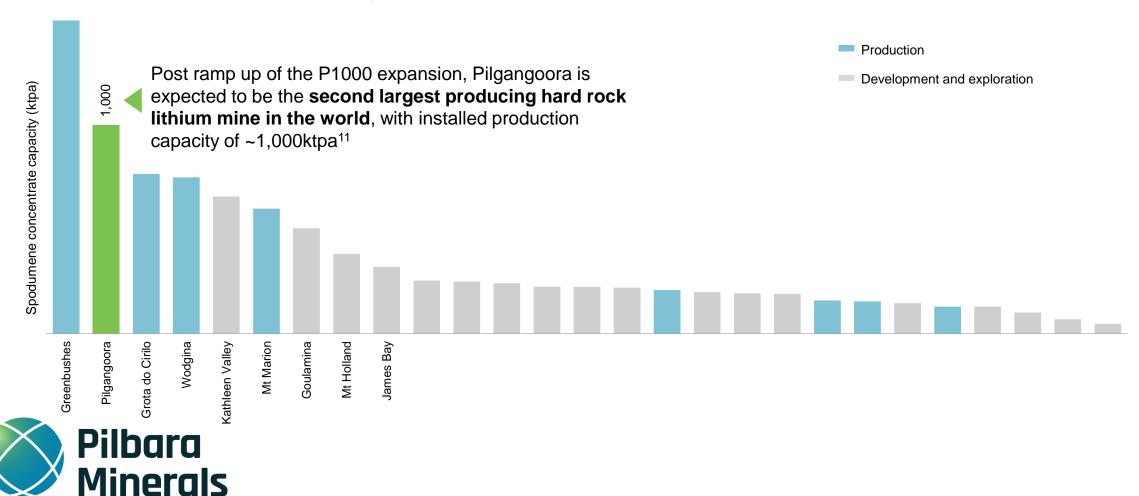
1 Mtpa nameplate production⁸

First ore from March Quarter 2025



To become a leading global producer

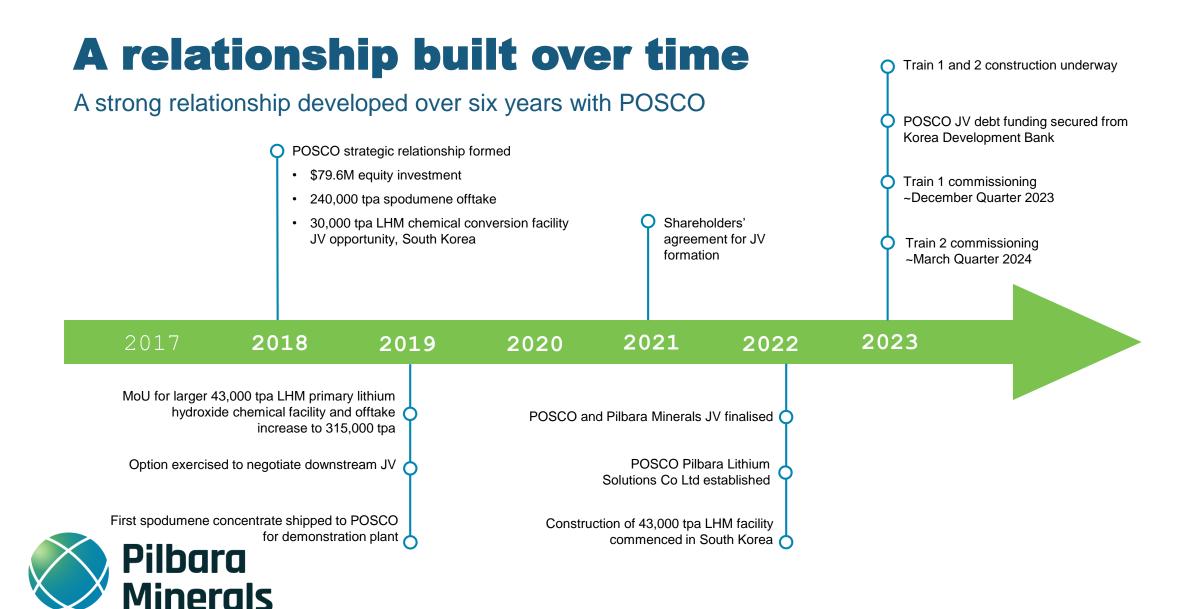
Spodumene production capacity vs peers¹⁰



Our partnership with POSCO

Up to 30% equity participation in a 43,000 tpa lithium hydroxide facility in Gwangyang, South Korea in joint venture with POSCO





The start of a long and prosperous partnership







Downstream lithium chemicals JV with POSCO¹²

- JV to develop and operate a 43,000 tpa lithium hydroxide chemical processing facility
- JV company formed in South Korea POSCO Pilbara Lithium Solutions Co Ltd
- Initial 18% equity interest with option to increase to 30%
- 315,000 tpa spodumene concentrate offtake to supply JV
- Strategic location in Gwangyang on the doorstep of South Korean battery supply chain.
- Supports diversification strategy to become a fully integrated battery materials company







A strategic location in Gwangyang, South Korea

- Close proximity to port, road and other infrastructure
- Next door to POSCO Future M
- Within the Yulchon Industrial Complex, located in the Gwangyang Free Economic Zone – with favourable tax and tariff exemptions
- 196,103 m² of land





May 2021 Breaking ground



December 2021 New roads built

Construction rapidly advancing

Train 1 – 75% complete – PosLX

- Erection of steel frames and infrastructure
- Installation of components for the calcining and acid roasting kilns
- Commissioning expected in December Quarter 2023

Train 2 – 40% complete - Conventional

- Construction of civil structure for calcining and roasting complete
- Steel structure for key infrastructure installed
- Commissioning expected in March Quarter 2024



August 2023 Construction site at the POSCO Pilbara Lithium Solutions LHM facility

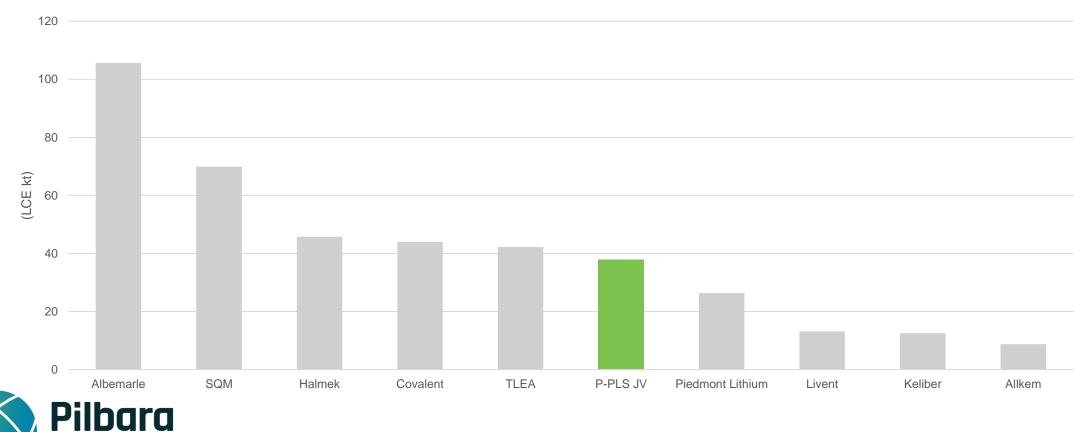


POSCO Pilbara Lithium Solutions

Becoming a globally significant lithium chemicals producer

Estimated Ex China LiOH nameplate production capacity by operator, CY26¹³

Minerals





South Korea – A growing strategic hub

JV places POSCO and Pilbara Minerals at the forefront of the emerging South Korean lithium chemicals and battery market



South Korea Cathode and battery producers















I Thank you

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ASX: PLS



Important notices

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This document contains a summary of information about Pilbara Minerals and its activities that is current as at the date of this document unless otherwise stated. The information in this document is general in nature and does not contain all the information which a prospective investor may require in evaluating a possible investment in Pilbara Minerals or that would be required in a prospectus or a product disclosure statement prepared in accordance with the Corporations Act 2001 (Cth) ("Corporations Act") or the securities laws of any other jurisdiction. The information in this document should be read in conjunction with Pilbara Minerals' other periodic and continuous disclosure announcements lodged on the ASX.

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Reporting of Mineral Resources and Ore Reserves

Recipients of this presentation outside Australia should note that it is a requirement of the Australian Securities Exchange listing rules that the reporting of ore reserves and mineral resources in Australia comply with the Australian Joint Ore Reserves Committee Code for Reporting of Mineral Resources and Ore Reserves ("JORC Code"), whereas mining companies in other countries may be required to report their ore reserves and/or mineral resources in accordance with other guidelines (for example, SEC regulations in the United States). Such estimates of reserves are largely dependent on the interpretation of data and may prove to be incorrect over time. No assurance can be given that the reserves and contingent resources presented in the document will be recovered at the levels presented. Recipients should note that while Pilbara Minerals' mineral resource and ore reserve estimates comply with the JORC Code, they may not comply with the relevant guidelines in other countries including SEC regulations. You should not assume that quantities reported as "resources" will be converted to reserves under the JORC Code or any other reporting regime or that Pilbara Minerals will be able to legally and economically extract them.

Forward looking statements

Statements contained in this document, including but not limited to those regarding possible or assumed production, sales, future capital and operating costs, projected timeframes, performance, dividends, returns, revenue, exchange rates, potential growth of Pilbara Minerals, the timing and amount of synergies, the future strategies, results and outlook of the combined Pilgangoora Project, industry growth, commodity or price forecasts, or other projections and any estimated company earnings are or may be forward looking statements. Forward-looking statements can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'intend', 'anticipate', 'believe', 'estimate', 'may', 'should', 'will' or similar expressions. Forward looking statements in this presentation regarding the outcomes of preliminary and definitive feasibility studies, projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. These statements relate to future events and expectations and as such involve known and unknown risks and significant uncertainties, many of which are outside the control of Pilbara Minerals. Actual results, performance, actions and developments of Pilbara Minerals may differ materially from those expressed or implied by the forward-looking statements. Such forward-looking statements speak only as of the date of this document. To the maximum extent permitted by law, Pilbara Minerals and any of its affiliates and their directors, officers, employees, agents, associates and advisers: disclaim any obligations or undertaking to release any updates or revisions to the information in this document to reflect any change in expectations or assumptions; do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information, liability for negligence). Nothing in this document will under any circumstances create an implicat

Important notices

Important Information regarding Mineral Resources, Ore Reserves and P680 and P1000 Projects

Information in this presentation regarding expansions in nameplate capacity of the Pilgan Plant in respect of the P680 and P1000 projects are underpinned by the Company's existing Ore Reserves that have been prepared by a Competent Person in accordance with the JORC Code (2012 Edition) and were released by the Company to ASX on 24 August 2023. The relevant proportions of proven Ore Reserves and probable Ore Reserves are 9% proved Ore Reserves and 91% probable Ore Reserves. The Company confirms it is not aware of any new information or data that materially affects the information included in that release or report and that all material assumptions and technical parameters underpinning the Ore Reserves estimates continue to apply and have not materially changed.

Information in this presentation relating to Mineral Resource estimates is extracted from the ASX release dated 24 August 2023. Information in this presentation relating to Ore Reserve estimates is extracted from the ASX release dated 24 August 2023. Pilbara Minerals confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the Mineral Resource and Ore Reserve estimates continue to apply and have not materially changed. Pilbara Minerals confirms that the form and context in which the competent persons' findings are presented in this presentation have not been materially modified from the original market announcements.

Guidance as to Production, Unit Costs and Capital Expenditure

Any guidance as to production, unit costs and capital expenditure in this presentation is based on assumptions, budgets and estimates existing at the time of assessment which may change over time impacting the accuracy of those estimates. These estimates are developed in the context of an uncertain operating environment including in respect of inflationary macroeconomic conditions, incomplete engineering and uncertainties surrounding the risks associated with mining and project development including the construction, commissioning and ramp up of projects such as the P680 and P1000 Projects which may delay or impact production and have a flow on effect on sales. Actual results may therefore vary significantly depending on these risks and the timing required to address them. The information is therefore provided as an indicative guide to assist sophisticated investors with modelling of the Company. It should not be relied upon as a predictor of future performance.

Midstream Demonstration Plant Project

Front End Engineering Design (FEED) and other technical studies in respect of the Mid-Stream Demonstration Plant have been undertaken to determine the potential viability of the demonstration plant and to reach a final investment decision. The FEED study has been prepared to an accuracy level of +/-20% (for Capital costs) and +/-20% (for Operating costs). As with all studies of this nature no assurance or certainty can be provided that the conclusions of the studies including in respect of capital and operating cost estimates and timing will be realised..

Financial information

In order to provide additional insight into the business, certain non-IFRS measures such as "EBITDA", "underlying profit after tax", "Cash Balance inclusive of LOC" and "Net Cash/(Debt)" may be used in this presentation which are unaudited, non-IFRS measures that, in the opinion of the Company's directors, provides useful information to assess the financial performance of the Company over the reporting period. Reconciliations to IFRS measures are included within this presentation.

This presentation should be read in conjunction with the Company's FY23 Annual Financial Report and accompanying notes dated 25 August 2023.

Past performance

Statements about past performance are not necessarily indicative of future performance.

References to Australian dollars

All references to dollars (\$) and cents in this report are to Australian currency, unless otherwise stated.

Acceptance

By accepting, accessing or reviewing this document you acknowledge, accept and agree to the matters set out above.

Authorisation of release

Release of this market announcement is authorised by Mr Dale Henderson, Managing Director & CEO.

Online communications

Pilbara Minerals encourages investors to be paperless and receive Company communications, notices and reports by email. This will help further reduce our environmental footprint and costs.

Shareholder communications available online include the Annual Report, Voting Forms, Notice of Meeting, Issuer Sponsored Holding Statements and other company related information. Investors can view, download or print shareholding information by choice. To easily update communication preferences, please visit: www.computershare.com.au/easyupdate/PLS.

Appendix A - End Notes

- As at 29 August 2023.
- As at 30 June 2023.
- 3. Ore Reserve as at 30 June 2023, including stockpiled material, was 214Mt at 1.2% Li₂O, 103 ppm Ta₂O₅ and 1.0% Fe₂O₃. The relevant proportions of Ore Reserves are 9% Proved Ore Reserves and 91% Probable Ore Reserves.
- 4. The ~34 year life of mine and ore mined referenced is from 30 June 2023. This production over life of mine is underpinned by the Company's existing reported Ore Reserves that have been prepared by a Competent Person in accordance with the JORC Code (2012 Edition) and were released by the Company to the ASX on 24 August 2023 and reported in the Company's FY23 Annual Report. Based on combined 6.3 Mtpa throughput operations consisting of 1.3 Mtpa Ngungaju process plant and the proposed Pilgan 5 Mtpa expanded process plant for the P1000 expansion project (Refer to ASX Announcement 29 March 2023).
- 5. Increase in nameplate production capacity uplift to ~ 1 Mtpa subject to completion and commissioning of the P680 and P1000 Projects. Actual production is expected to vary in any year due to ore grade, concentrate grade, mine plan and other factors refer to P1000 Project ASX release 29 March 2023.
- 5. Source: Company filings as at 21 August 2023. Refer Appendix B. Note: 'Production' assets defined as those currently in commercial production. 'Development' assets defined as those with a FID declared. 'Exploration; assets defined as pre-FID. All on a 100% basis. Excludes Manono (AVZ).
- 7. Production nameplate capacity uplift to 680 ktpa is subject to completion and commissioning of the P680 Project.
- 8. Production nameplate capacity uplift to ~ 1 Mtpa subject to completion and commissioning of the P1000 Project. Actual production is expected to vary in any year due to ore grade, concentrate grade, mine plan and other factors refer to P1000 Project ASX release 29 March 2023.
- 9. This does not represent a production target pursuant to the ASX listing rules. It is an aspirational statement and Pilbara Minerals does not yet have reasonable grounds to believe the statement can be achieved.
- 10. Excludes projects with no formal study released, or where no definitive spodumene production capacity figure is quoted in a study. Excludes Manono (AVZ).
- 11. Pilgangoora based on combined 6.3 Mtpa throughput operations consisting of 1.3 Mtpa Ngungaju process plant and the proposed Pilgan 5 Mtpa expanded process plant for the P1000 expansion project. Increase in nameplate production capacity uplift to ~ 1 Mtpa subject to completion and commissioning of the P680 and P1000 Projects. Actual production is expected to vary in any year due to ore grade, concentrate grade, mine plan and other factors Refer to ASX Announcement 29 March 2023.
- 12. Refer ASX releases 26 October 2021 and 11 April 2022
- 13. Source: Wood Mackenzie Q2 2023. Operating, highly probable and base case. Pilbara Minerals holds an 18% interest in P-PLS JV, with the option to increase this to 30%.

Appendix B - Supporting data: Hard-rock Mineral Resources (slide 5)

	Company ¹	Project name	Stage	Location	Announcement title	Announcement date	Total (Mt)	Resource grade (% Li₂O)	Contained Li ₂ O (Mt)	Contained LCE (Mt) ²
1	Pilbara Minerals	Pilgangoora	Production	Australia	Substantial Increase to Pilgangoora Mineral Resource to 414Mt	7-Aug-23	414	1.15%	4.8	11.8
2	AVZ Minerals	Manono	Exploration	DRC	Updated Mineral Resource Estimate	24-May-21	401	1.65%	6.6	16.4
3	IGO / Tianqi / Albemarle	Greenbushes	Production	Australia	IGO 2022 Annual Report to Shareholders	30-Aug-22	360	1.50%	5.4	13.4
4	Mineral Resources	Wodgina	Production	Australia	Lithium Mineral Resources and Reserve Update	7-Oct-22	259	1.17%	3.0	7.5
5	Leo Lithium	Goulamina	Development	Africa	Significant Goulamina Mineral Resource upgrade 48% increase to 211Mt	20-Jun-23	211	1.37%	2.9	7.1
6	SQM	Mt Holland	Development	Australia	Mt Holland Technical Report	25-Apr-22	186	1.53%	2.9	7.0
7	Liontown	Kathleen Valley	Development	Australia	Kathleen Valley Lithium Project - DFS Update 2	8-Apr-21	156	1.35%	2.1	5.2
8	Rio Tinto	Jadar	Exploration	Europe	Update to Ore Reserves and Mineral Resources at Jadar	23-Feb-22	144	1.80%	2.6	6.4
9	Infinity Lithium	San Jose	Exploration	Europe	South-West Connect Conference	20-Oct-22	111	0.61%	0.7	1.7
10	Allkem	James Bay	Exploration	North America	James Bay Mineral Resources increased by 173% to 110.2Mt	11-Aug-23	110	1.30%	1.4	3.5
11	Patriot Battery Metals	Corvette	Exploration	North America	Patriot announces the largest lithium pegmatite Resource in the Americas at CV5	30-Jul-23	109	1.4%	1.5	3.8
12	Albemarle	Kings Mountain	Production	North America	2022 Annual Report	14-Feb-23	90	1.24%	1.1	2.8
13	Sigma	Grota do Cirilo	Production	South America	Sigma Lithium Corporate Presentation March 2023	15-Mar-23	86	1.43%	1.2	3.0
14	Andrada	Uis	Exploration	Africa	Drilling Delivers Significant Lithium Resource Upgrade at the Uis Mine	6-Feb-23	81	0.73%	0.6	1.5
15	Prospect	Arcadia	Development	Africa	Staged OFS Investor Presentation	11-Oct-21	73	1.06%	0.8	1.9
16	Sayona	North American Lithium	Production	North America	Definitive Feasibility Study confirms NAL value with A\$2.2B NPV	13-Apr-23	58	1.23%	0.7	1.8
17	Livent	Nemaska	Development	North America	NI 43-101 Report on the Estimate to Complete for the Whabouchi Lithium Mine	31-May-19	56	1.40%	0.8	1.9
18	Frontier	Pakeagama Lake	Exploration	North America	Frontier Lithium PFS Demonstrates Pre-Tax NPV US\$2.6bn	1-Jun-23	55	1.47%	0.8	2.0
19	Mineral Resources	Mt Marion	Production	Australia	Lithium Mineral Resources and Reserve Update	7-Oct-22	51	1.45%	0.8	1.8
20	Sayona	Moblan	Exploration	North America	Moblan Boosted by Significant Increase in Lithium Resource	17-Apr-23	51	1.31%	0.7	1.7
21	Latin Resources	Salinas	Exploration	South America	241% increase for the Colina Mineral Resource	20-Jun-23	45	1.32%	0.6	1.5
22	Piedmont	Carolina Lithium	Exploration	North America	Piedmont Increases Mineral Resources	22-Oct-21	44	1.08%	0.5	1.2
23	Zinnwald Lithium	Zinnwald	Exploration	Europe	PEA for the revised Zinnwald Lithium Project (NL to FN, Li converted to Li2O using 2.153, it is reported in li PPM)	6-Sep-22	40	0.76%	0.3	0.8
24	Global Lithium	Manna	Exploration	Australia	Manna Lithium Project Resource Grows	26-Jul-23	36	1.13%	0.4	1.0
25	Atlantic Lithium	Ewoyaa	Exploration	Africa	Definitive Feasibility Study Project Update	22-Sep-22	35	1.25%	0.4	1.1
26	Critical Elements	Rose	Exploration	North America	Rose Lithium-Tantalum project feasibility study	13-Jun-22	34	0.90%	0.3	0.8
27	Core Lithium	Finniss	Production	Australia	Significant Increase to Finniss Mineral Resources	18-Apr-23	31	1.31%	0.4	1.0
28	Bikita Minerals	Bikita	Production	Africa	SMM news	18-May-22	29	1.17%	0.3	0.9
29	Savannah	Mina Do Barroso	Exploration	Europe	Annual Report and Financial Statements	31-Dec-21	27	1.06%	0.3	0.7
30	Alita	Bald Hill	Production	Australia	121 Mining Conference Presentation	20-Mar-19	27	0.96%	0.3	0.6
31	CAT Strategic Metals	Kamativi	Exploration	Africa	Chimata Releases NI 43-101 Technical Report on the Kamativi Tailings Lithium Project	7-Nov-18	27	0.58%	0.2	0.4
32	AMG Mineracao	Mibra	Production	South America	AMG Advanced Mettallurgical Group Announces Increased Lithium and Tantalum Mineral Resource at Mibra Mine	3-Mar-17	25	1.05%	0.3	0.6
33	Kodal Minerals	Bougouni	Exploration	Africa	FS demonstrates robust economics for development of the Bougouni Lithium Project	27-Jan-20	21	1.11%	0.2	0.6
34	Premier African Minerals	Zulu	Development	Africa	Africa's Next Lithium Developer	20-Jun-21	20	1.06%	0.2	0.5
35	Keliber Oy	Keliber	Development	Europe	Mineral Resources from Keliber's New Tuoreetsaaret Lithium Deposit	23-Jun-22	17	1.02%	0.2	0.4
36	Sayona	Authier	Production	North America	Definitive Feasibility Study confirms NAL value with A\$2.2B NPV	13-Apr-23	17	1.01%	0.2	0.4
37	Liontown	Buldania	Exploration	Australia	Annual Report to Shareholders	30-Sep-22	15	1.00%	0.2	0.4
38	Rock Tech Lithium	Georgia Lake	Exploration	North America	Georgia Lake Pre-Feasibility Study	1-Oct-22	15	0.91%	0.1	0.3
39	Allkem	Mt Cattlin	Production	Australia	Mt Cattlin Resource Upgrade with Higher Grade	17-Apr-23	13	1.30%	0.2	0.4
40	Delta Lithium	Mt Ida	Exploration	Australia	Maiden Lithium Mineral Resource Estimate at Mt Ida	19-Oct-22	13	1.20%	0.2	0.4
41	European Lithium	Wolfsberg	Exploration	Europe	EUR Merger with NASDAQ Corp	26-Oct-22	13	1.00%	0.1	0.3
42	Lepidico	Karibib	Development	Africa	Helikon 4 & Rubicon Stockpiles Upgrade to Mineral Resources	30-Jan-23	12	0.46%	0.1	0.1
43	Essential Metals	Dome North	Exploration	Australia	Dome North Resource Upgrade	20-Dec-22	11	1.16%	0.1	0.3
44	Snow Lake Resources	Thompson Brothers	Exploration	North America	Annual Report to Shareholders	1-Nov-22	11	1.00%	0.1	0.3
45	Avalon	Separation Rapids	Exploration	North America	NI 43-101 Separation Rapids Lithium Deposit	26-Sep-18	10	1.40%	0.1	0.4
46	Green Technology	Seymour	Exploration	North America	Investor Presentation South - West Connect Conference	20-Oct-22	10	1.04%	0.1	0.3
47	Green Technology	Root	Exploration	North America	Maiden Mineral Resource Estimate for the Root Project	19-Apr-23	5	1.01%	0.1	0.1

Source: Company filings as at 21 August 2023. Note: Figures are rounded. Reported on a 100% asset basis. Sorted by Resource Tonnes.

¹ Company reporting the Mineral Resource; 2. Li₂O converted to Lithium Carbonate Equivalent using a factor of 2.473. Manono Project excluded from the bubble chart.