Pilgangoora: discovery to product shipment in under four years

Corporate Presentation – Annual General Meeting, November 2018



Important Notices and Competent Persons Statement

Not an Offer of Securities

This document has been independently prepared by Pilbara Minerals Limited ("Pilbara") and is dated 28/11/2018. This document is provided for informational purposes and does not constitute or contain an offer, invitation, solicitation or recommendation with respect to the purchase or sale of any security in Pilbara. This document is not a prospectus, product disclosure statement or other offering document under Australian law or any other law, will not be lodged with the Australian Securities and Investments Commission, and may not be relied upon by any person in connection with an offer or sale of Pilbara securities.

Summary Information

This document contains a summary of information about Pilbara 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 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.

No Liability

The information contained in this document has been prepared in good faith by Pilbara, however no guarantee, representation or warranty expressed or implied is or will be made by any person (including Pilbara and its affiliates and their directors, officers, employees, associates, advisers and agents) as to the accuracy, reliability, correctness, completeness or adequacy of any statements, estimates, options, conclusions or other information contained in this document. No person other than Pilbara is responsible for the preparation of this document. To the maximum extent permitted by law, Pilbara and its affiliates and their directors, officers, employees, associates, advisers and agents each expressly disclaims any and all liability, including, without limitation, any liability arising out of fault or negligence, for any loss arising from the use of or reliance on information contained in this document including representations or warranties or in relation to the accuracy or completeness of the information, statements, opinions, forecasts, reports or other matters, express or implied, contained in, arising out of or derived from, or for omissions from, this document including, without limitation, any financial information, any estimates, forecasts, or projections and any other financial information derived therefrom. Statements in this document are made only as of the date of this document unless otherwise stated and the information in this document remains subject to change without notice. No responsibility or liability is assumed by Pilbara or any of its affiliates (or their directors, officers, employees, associates, advisers and agents) for updating any information in this document or to inform any recipient of any new or more accurate information or any errors or mis-descriptions of which Pilbara and any of its affiliates or advisers may become aware.

Forward Looking Statements

Statements contained in this document, including but not limited to those regarding the possible or assumed future costs, projected timeframes, performance, dividends, returns, revenue, exchange rates, potential growth of Pilbara, industry growth, commodity or price forecasts, or other projections and any estimated company earnings are or may be forward looking statements. 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. Actual results, performance, actions and developments of Pilbara may differ materially from those expressed or implied by the forward-looking statements in this document. Such forward-looking statements speak only as of the date of this document. There can be no assurance that actual outcomes will not differ materially from these statements. To the maximum extent permitted by law, Pilbara and any of its affiliates and their directors, officers, employees, agents, associates and advisers: disclaim any obligations or undertaking to reliease 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 in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence). Nothing in this document will under any circumstances create an implication that there has been no

Important Notices and Competent Persons Statement

Not Financial Product Advice

This document does not constitute financial product advice or take into account your investment objectives, taxation situation, financial situation or needs. This document consists purely of factual information and does not involve or imply a recommendation of a statement of opinion in respect of whether to buy, sell or hold a financial product. An investment in Pilbara is considered to be speculative in nature and is subject to known and unknown risks, some of which are beyond the control of Pilbara. Before making any investment decision in connection with any acquisition of securities, investors should consult their own legal, tax and/or financial advisers in relation to the information in, and action taken on the basis of, this document.

U.S. Securities Laws

Any securities issued by Pilbara have not been and will not be registered by Pilbara under the United States Securities Act of 1933 ("U.S. Securities Act"). Accordingly, such securities may not be offered or sold in the United States except in transactions that are exempt from, or not subject to, the registration requirements of the U.S. Securities Act.

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 Australasian 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 Industry Guide 7 in the United States). Recipients should note that while Pilbara's mineral resource and ore reserve estimates comply with the JORC Code, they may not comply with the relevant guidelines in other countries, and do not comply with SEC Industry Guide 7. In particular, SEC Industry Guide 7 does not recognise classifications other than proven and probable reserves and, as a result, the SEC generally does not permit mining companies to disclose their mineral resources, including indicated and inferred resources, in SEC fillings. Accordingly, if Pilbara were reporting in accordance with SEC Industry Guide 7, it would not be permitted to resources, including indicated and inferred resources, and the amount of reserves reported by Pilbara may be lower than its estimates. 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 will be able to legally and economically extract them. In addition, investors should note that under SEC Industry Guide 7, mine life may only be reported based on ore reserves.

Mine life estimates in this presentation assume that a portion of non-reserve resources will be converted to ore reserves, which would not be permitted under SEC Industry Guide 7.

Acceptance

👺 attending a presentation or briefing, or accepting, accessing or reviewing this document you acknowledge, accept and agree to the matters set out above.

Competent Persons Statements

The Company confirms it is not aware of any new information or data that materially affects the information included in the 17 September 2018 Pilgangoora Mineral Resource estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 17 September 2018.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 17 September 2018 Pilgangoora Ore Reserve estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 17 September 2018.

Pilgangoora Lithium-Tantalum Project

One of the largest spodumenetantalite resources in the world

100% ownership

Stage 1, 2Mtpa processing plant

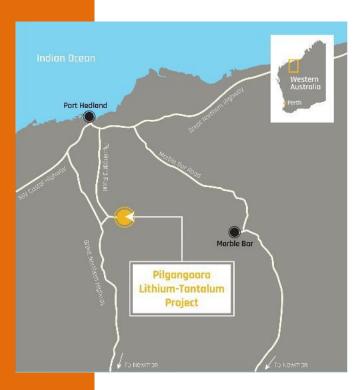
LOM Stage 1 production of 330,000tpa

Established transport and port infrastructure

Production ramp up underway

Regular spodumene concentrate shipments underway

- Regular tantalite deliveries underway
- Further production growth proposed based on customer demand in offtake











Pilbara Minerals – Delivering on Project Execution

Stage 2 DFS/FID PFS (2Mtpa Stage 1 Complete DFS (2Mtpa) Resource and 4/5Mtpa) Project Near-term Complete Growth Production Complete Production Growth to +100kt LCE

Resource Estimation

- JORC Inferred / Indicated 130Mt Resource completed
- Massive pegmatite endowment on Pilbara's tenure presents outstanding opportunities for further resource and reserve arowth
- ► Key global strategic resource

personal



Project Definition

- Maiden Ore Reserve. 29.5Mt @ 1.31% Li₂O, 134ppm Ta₂O₅ tantalite
- Outstanding project economics
- ▶ I ow cost hard-rock Spodumene production
- ► Further ore reserve growth expected, growing mine-life



Detailed Design and Project Planning

- Updated Ore Reserve of 80.3Mt @ 1.27% Li₂O, 123ppm Ta₂O₅; long mine-life
- Plant process and design optimisation
- Product specification and bulk samples to customers
- ▶ Tailings design
- Opex & Capex updates
- Updated financial models



Project Delivery / Production

- ▶ Updated Resource of 213Mt 1.32% Li₂O
- Native Title Agreement
- Mining Leases granted
- Construction commenced
- ▶ Plant FPC Contract Tender/Award
- Native Vegetation Clearing Permit
- Mining Proposal Approval
- Secure offtake
- ► Financing / FID
- Other construction and operating contracts
- ▶ ROM ore sales commenced
- ► Commissioning / 1st conc on track from Q2 2018
- ► Concentrate production

PRIMERO















Pilgangoora - the journey so far



Production and cash-flow today....

Flagship Pilgangoora Lithium-Tantalum Project – from first drill hole to commissioning in under four years

Long project life, low cost, high quality product

Regular spodumene concentrate shipments underway

- +6% Li₂O, low-iron
- Regular tantalite deliveries underway, +5% primary concentrate
- Offtake for 100% of Stage 1 and Stage 2 projects
- Stage 2 Project FID conditionally approved by Board and long-lead orders underway
- No material expected from RCR administration
- Stage 1 construction works complete
- Significant bank guarantees in place including for the defects liability period
- Construction contracts not yet awarded in relation to Stage 2







PILGANGOORA LITHIUM-TANTALUM PROJECT

FROM FIRST DRILL HOLE TO FIRST PRODUCT SHIPMENT IN UNDER FOUR YEARS

Click <u>here</u> to watch processing at the Pilgangoora project

Pilgangoora site - production metrics

First shipment average grade:

Lithia ≈ 6.2%

 $Fe_2O_3 \approx 0.7\%$

Second shipment average grade:

Lithia ≈ 6.3%

 $\mathbb{F}e_2\mathbb{O}_3 \approx 1.2\%$

Shipment 3 currently loading in port

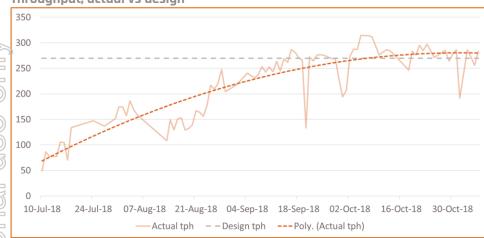


6	15	Units	Q2 FY18	Q3 FY18	Q4 FY18	Q1 FY19	
	Ore Mined	wmt	0	0	344,549	525,559	
2	Waste Mined	wmt	151,812	1,832,205	2,851,161	1,884,335	
PI (Total Material Mined	wmt	151,812	1,832,205	3,195,710	2,409,894	
	Ore Mined - Grade	%	-	1	1.45	1.43	
1 1	Ore Crushed	wmt	-	1	50,185	177,369	
	Ore Processed	wmt	-	1	ı	173,667	
	DSO Sold (mine gate)	wmt	-	1	145,974	205,766	
	Spodumene Concentrate Produced	dmt	-	1	-	11,814	
	Spodumene Concentrate Sold	dmt	-	ı	ı	-	
	Tantalite Concentrate Produced	lb	-	-	-	16,891	
	Tantalite Concentrate Sold	lb	-	1	-	4,974	

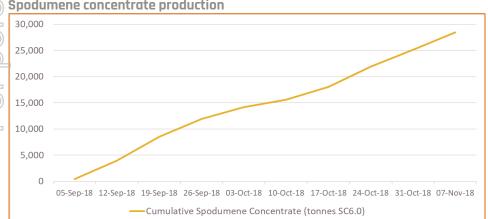


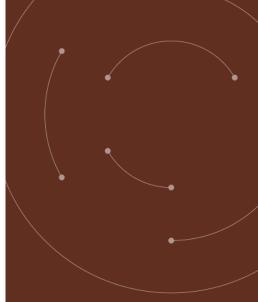
Process plant performance





Spodumene concentrate production





Plant commissioning and rapid ramp-up in production capacity

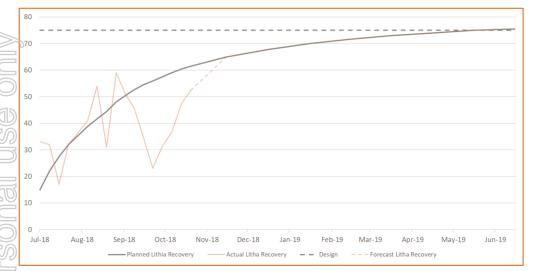
Proven plant sub-components and overall plant capacity

Very high product quality produced and shipped

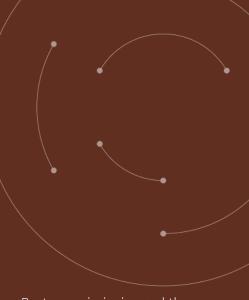
Focus on lithia recovery and plant run time optimisation over the next 4-6 months

Process plant performance

Lithia recovery, actual vs design (% Lithia)



- Late Sept, early-mid Oct lithia recovery was impacted by
 - process water clarity (pond sedimentation); and
 - recirculating reagent load from the fines flotation circuit.
- Additional process water now added to further dilute reagent load, anti-foaming agent added and process water pond dredging underway.
- Recovery trend improving markedly and in-line with expectations.



Post commissioning and the run-up in plant capacity, focus turns to lithia recovery improvements and plant run-time:

- maximise recovery, and
- minimise plant downtime.

Approximately 60% of the plant's overall production capacity realised at this stage of the ramp-up

Stage 2, 5Mtpa expansion

DFS results and offtake partner confidence support major project expansion

Additional 3Mtpa processing circuit to increase processing capacity to 5Mtpa

Average annual production of approximately 800-850ktpa of 6% spodumene concentrate

DFS capital estimate² A\$231M

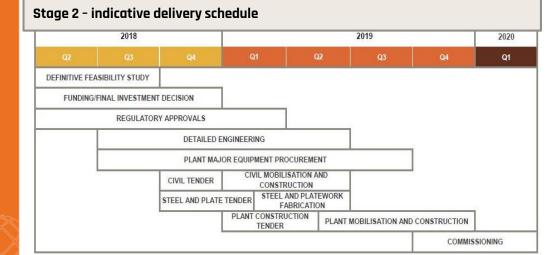
Post-tax NPV^{1,2}10% of A\$2,160B

Forecast life of mine revenue² of A\$12.2B

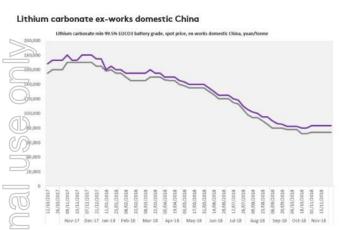
First five years average annual EBITDA (real), post ramp-up² of +A\$400M

FID approved by Board and funding package well advanced

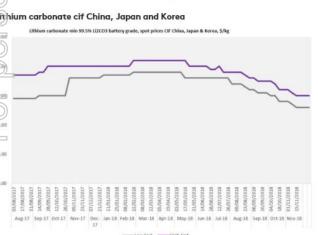


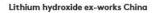


Global lithium chemicals pricing

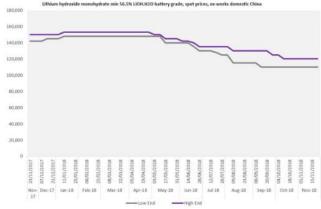




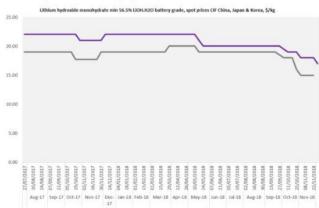


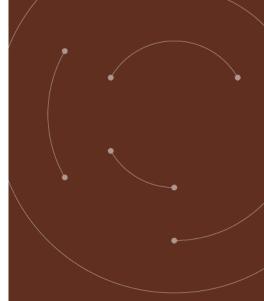






Lithium hydroxide cif China, Japan and Korea





China domestic pricing in 2018 impacted by;

- Central Government Battery subsidy restructure, and
- Additional low-grade domestic brine production.

China domestic pricing appears to have stabilised

Ex-China pricing has remained strong



Pilbara Minerals - connected to the entire supply chain























GanfengLithium









posco









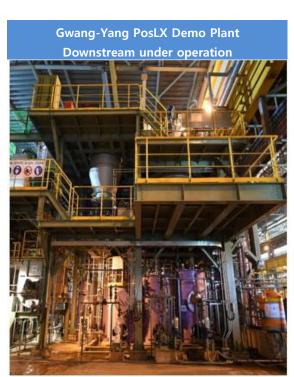




Proposed Pilbara Minerals - POSCO JV

Future participation in the rapidly developing Korean lithium ion battery market through a jointly owned lithium chemicals plant

- Spodumene sales into the Korean market
- 30kt LCE facility proposed, applying Posco's PosLX technology for lithium chemicals purification
 - Outstanding technology creating very high purity products and reagent recycling
 - ✓ Targeting production from 1st half of 2020
 - ✓ Hydroxide / Carbonate Production underway at the Gwang-Yang demo plant
- Synergy maximisation through development within a larger battery raw materials industrial park





Yulchon Industrial Area, Gwang-Yang Bay

posco

소리없이 세상을 움직입니다 www.posco.co.kr

One of the best lithium raw material projects in the world

Low cost

- High grade lithium resources
- Valuable tantalum bi-product
- Significant project size and processing capacity

Long life

- Stage 2, 5Mtpa, 23 year mine life
- · Mineral Resource 226Mt grading 1.27% $\rm Li_2O$ (spodumene) and 116ppm $\rm Ta_2O_5$ and 0.60% $\rm Fe_2O_3$
- Significant upside potential to increase Mineral Resources and Ore Reserves

High quality

personal

- Leading offtake partners General Lithium, Ganfeng Lithium, POSCO, Great Wall Motors
- 6% spodumene product
- Downstream value adding supply chain strategy



Additional Information

Corporate overview

Capital structure	ASX: PLS		
Current share price ¹	A\$0.83		
Shares on issue	1,744 million		
Options on issue ²	55 million		
Market capitalisation ¹	A\$1.45 billion		
Cash at bank ³	A\$90.6M		
Top 20 shareholders (as at 28 September 2018)	37.4%		
3 month average daily volume ⁴	~8M shares		

As at 27 November 2018

As at 30 September 2018

Between 5/8/2018 and 9/11/2018

Share price – last 12 months



Supportive shareholder base, experienced Board and proven leadership team.

² Options have a volume weighted average exercise price of A\$0.515 and a volume weighted average time to expiry of 392 days

Experienced board of directors



Tony Kiernan Non-Executive Chairman

Highly experienced company director and former solicitor with over 35 years' in the management and operation of listed public companies. Currently Chairman and a non-executive director of several ASX-listed resource companies.



Ken Brinsden
Managing Director & CEO

Mining engineer with over 25 years' experience including mine management, production, and brown-fields and green-fields project development. Previously MD af ASX listed Atlas Iron Ltd contributing to its growth from junior explorer to significant Pilbara iron ore producer.



Nick Cernotta

Non-Executive Director

Highly experienced mining executive with over 30 years' mining experience across a range of commodities. Recently the Director of Operations with Fortescue Metals Group (FMG) and previously the Chief Operating Officer for Macmahon Holdings Limited.



Sally-Anne Layman
Non-Executive Director

Mining engineer, corporate financier and advisor. Ms Layman has 23 years' experience in exploration, mining and finance and over 16 years of successfully identifying and closing over \$1.8 billion in financial deals and equity investments across six continents and more than 20 countries.



Steve Scudamore
Non-Executive Director

Highly experienced public company director. His career includes more than three decades with KMPG inc senior roles in Australia, London and Papua New Guinea. Currently holding several other board roles incl. Chairman of MDA National Insurance.

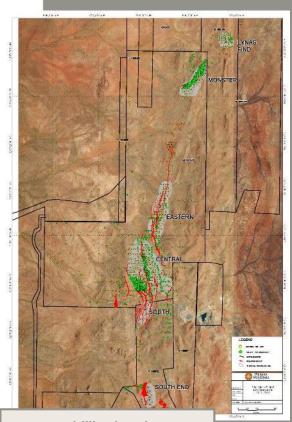
Resources and reserves

JORC Mineral Resource Estimate - September 2018 (using 0.2% Li₂0 cut off grade)

Category	Tonnage (Mt)	Li ₂ 0 (%)	Ta ₂ 0 ₅ (ppm)	Li ₂ 0 (T)	Ta ₂ O ₅ (Mlbs)	Factored Fe ₂ O ₃ (%)
Measured	22.8	1.38	145	314,000	7.3	0.44
Indicated	112.8	1.29	119	1,456,000	29.5	0.57
Sub-total M&I	135.6	1.31	123	1,770,000	36.8	0.55
Inferred	90.4	1.21	105	1,094,000	20.8	0.67
TOTAL	226.0	1.27	116	2,864,000	57.7	0.60

JORC Ore Reserve Estimate - September 2018

Category	Tonnage (Mt)	Li ₂ 0 (%)	Ta ₂ 0 ₅ (ppm)	Fe ₂ O ₃ (%)	Li ₂ 0 (Mt)	Ta ₂ O ₅ (Mlbs)
Proved	22.1	1.30	135	1.11	0.29	6.6
Probable	86.1	1.24	116	1.19	1.07	21.9
TOTAL	108.2	1.25	120	1.17	1.36	28.5



Resource drilling locations 2018

Pilgangoora processing

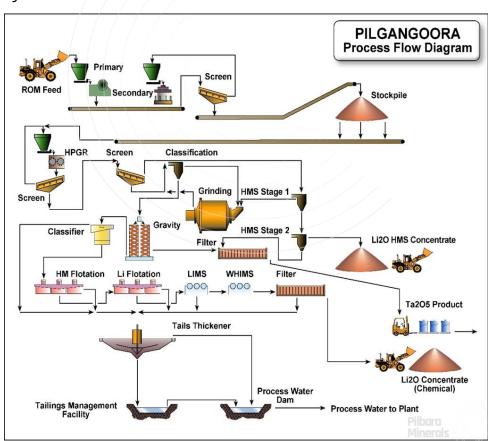
Spodumene and tantalite concentrate recovery

Spodumene concentrate contains lithium in the form of lithia (Li₂O), recovered at the mine via the concentrator:

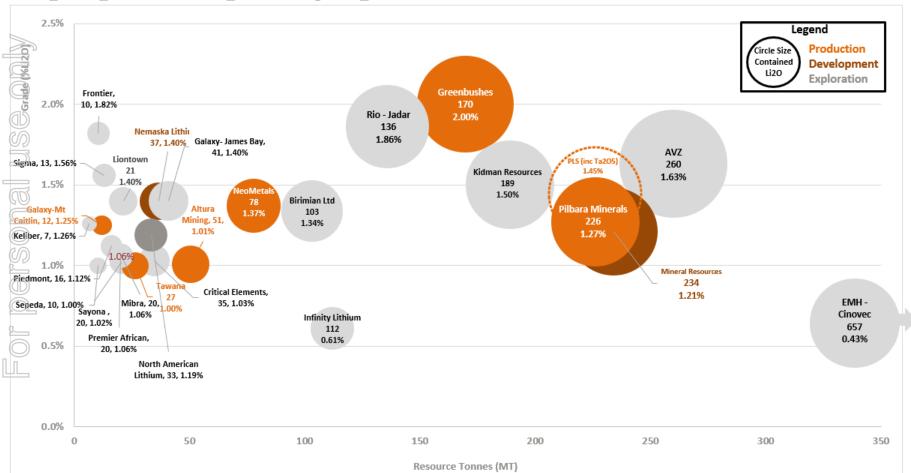
- 2-stage heavy media separation for coarse spodumene concentrate, and
- oxide flotation for fine spodumene concentrate.
- High-grade 6% Li₂O (SC6.0 specification) produced.

Tantalite concentrate (Ta₂O₅) contains tantalum:

- Recovered in the concentrators 'gravity' circuit.
- Tantalum used primarily in the electronics industry in the form of capacitors.
- Also used in the medical and aerospace industries.



Pilgangoora – a globally significant hard rock lithium resource





....with exceptional growth tomorrow

Pilgangoora Lithium-Tantalum Project – a globally significant hard rock lithium resource

- Stage 2, 5Mtpa expansion DFS released, 150% increase in production
- +100,000 tonnes LCE basis
- Positioned to be in the top 3 lithium raw material producers globally by 2020
- Strong support from offtake partners to increase production
- Stage 2 Final Investment Decision (FID), Board endorsement
- Long-lead items on order and detailed engineering underway
- Huge potential to upgrade Ore Reserves and Mineral Resources
- Downstream value adding supply chain strategy in South Korea and China

Strong offtake partners committed to Stage 1 and 2 production



General Lithium Corporation

Major producer of lithium chemicals in China

Highly experienced with more than 15 years of operational and technical know how Customers include top cathode producers in China Patented process from direct conversion of spodumene into LiOH

Producing 25ktpa LCEs with plans to add 60ktpa



Biggest steel producer in South Korea

- Listed on KSX, market cap US\$29.5B
- Largest producer of automotive grade steel
- PosLX Technology to produce very high battery grade LiOH
- Produces high Ni NCM cathode and anode materials
- Strategic partnership with a major Chinese co. and Ni producer
- Established the first Korean LC and LiOH plant







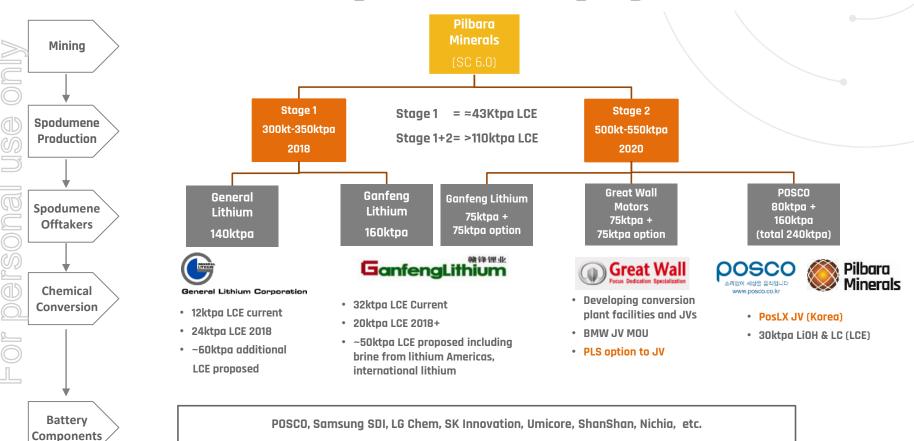
China's largest fully integrated lithium company

- Listed Shanghai Stock Exchange
- Market cap RMB39.2B ~US\$5.8B
- Commissioning another 40ktpa LCEs with plans for another 25ktpa to reach 100ktpa LCEs
- Customers include major cathode producers in China, Japan and South Korea

China's largest SUV and pickup manufacturer

- Listed Hong Kong and Shanghai Stock Exchange
- Market cap RMB120B ~US\$19B
- Producing ~1M vehicles per annum
- Aiming to produce 500,000 electric and hybrid cars a year by early 2020
- JV with BMW to supply mini-EV's
- Establishing a fully integrated mine to EV supply chain

Offtake for 100% of stage 1 and 2 of Pilgangoora



Pilbara Minerals / POSCO

POSCO agreements announced on 28 February 2018 close out the remaining uncommitted stage 2 production

Binding offtake agreement for an initial 80,000tpa of 6% spodumene concentrate from Stage 2 production for the Pilgangoora Life of Mine.

Immediate upfront A\$79.6M equity investment (representing 4.75% of issued capital, at a 17.5% premium) to allow acceleration of Stage 2, including the purchase of long lead items.

Additional 160,000tpa from Stage 2 production (for a total of 240,000tpa), subject to Stage 2 FID decision and Pilbara's participation in a downstream conversion plant joint venture with Posco ("Downstream Joint Venture").

Pilbara Minerals will be a 30% participant in the Downstream Joint Venture (at Pilbara's election), which will develop and operate a 30,000tpa lithium carbonate/lithium hydroxide conversion plant in South Korea from 2020, utilising POSCO's proven state-of-the-art PosLX conversion technology.

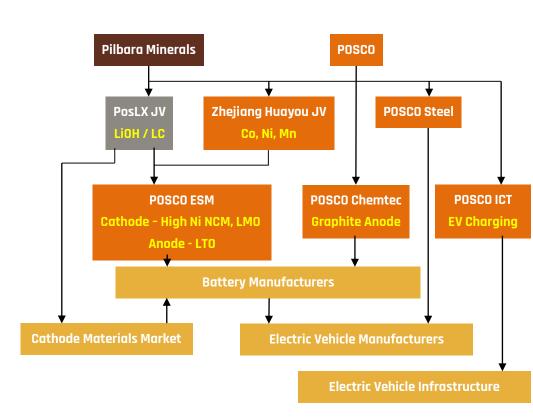
Should Pilbara elect to participate in the Downstream Joint Venture, POSCO will provide a further A\$79.6M by way of a convertible bond to help fund Pilbara's participation in the joint venture. The convertible bond will be convertible at Pilbara's sole option at any time during the term, at the lesser of the 30-day or 5 day VWAP, less a 7.5% discount.

• The convertible note (at Pilbara's election) will be unsecured, have a 5 year tenor, be priced at 1.5% over the RBA cash rate (indicatively 3% pa in total), with the principal and interest payable at maturity.



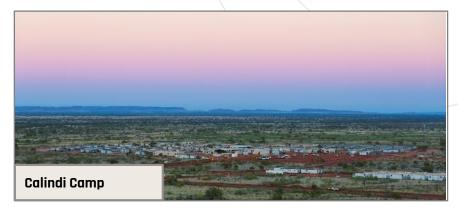
Pilbara Minerals / POSCO

- Pilbara Minerals to be a 30% participant in a Downstream Joint Venture (**DSJV**) with POSCO (at Pilbara's election), to develop and operate a 30,000tpa LCE lithium hydroxide/
- POSCO is a financially strong and technically capable partner who will provide a convertible bond (upon Pilbara's election) for A\$79.6M to largely fund Pilbara's initial 30% interest in the JV conversion plant
- POSCO's PosLX patented technology is cost competitive in comparison to conventional processing facilities
- POSCO provides Pilbara with a strategic link to lithium
 battery and EV manufacturers, having established R&D
 expertise to target the electric vehicle and energy storage
 markets
- DSJV expands Pilbara's access to the battery industry and should help Pilbara expand its knowledge of the lithium supply chain and core competencies
- DSJV broadens Pilbara's customer base, providing geographic diversification and greater access to global cathode makers
- DSJV should allow Pilbara to capture further value through direct participation in a downstream chemical conversion facility



Pilgangoora project overview









First spodumene concentrate shipment









Pilgangoora processing plant







