

## NEWS RELEASE



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### **BMO Global Farm to Market Conference**

BHP CFO, David Lamont, will present at the BMO Global Farm to Market Conference today.

A copy of the presentation is attached.

This is also available on BHP's website at: <https://www.bhp.com/investor-centre/investor-presentations-and-briefings/>

The webcast of the presentation will be available at:  
<https://bmo.qumucloud.com/view/vuhYFQ8Xerh2zmjHmQzqRr>

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# BHP

## BMO Farm to Market Conference

David Lamont Chief Financial Officer



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For example, our future revenues from our assets, projects or mines described in this release will be based, in part, upon the market price of the minerals, metals or petroleum produced, which may vary significantly from current levels. These variations, if materially adverse, may affect the timing or the feasibility of the development of a particular project, the expansion of certain facilities or mines, or the continuation of existing assets.

Other factors that may affect the actual construction or production commencement dates, costs or production output and anticipated lives of assets, mines or facilities include our ability to profitably produce and transport the minerals, petroleum and/or metals extracted to applicable markets; the impact of foreign currency exchange rates on the market prices of the minerals, petroleum or metals we produce; activities of government authorities in the countries where we sell our products and in the countries where we are exploring or developing projects, facilities or mines, including increases in taxes; changes in environmental and other regulations; the duration and severity of the COVID-19 pandemic and its impact on our business; political uncertainty; labour unrest; and other factors identified in the risk factors discussed in BHP's filings with the U.S. Securities and Exchange Commission (the 'SEC') (including in Annual Reports on Form 20-F) which are available on the SEC's website at [www.sec.gov](http://www.sec.gov).

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BHP also holds interests in assets that are owned as a joint venture but not operated by BHP (referred to in this release as 'non-operated joint ventures' or 'non-operated assets'). Our non-operated assets include Antamina, Cerrejón, Samarco, Atlantis, Mad Dog, Bass Strait and North West Shelf. Notwithstanding that this presentation may include production, financial and other information from non-operated assets, non-operated assets are not included in the Group and, as a result, statements regarding our operations, assets and values apply only to our operated assets unless otherwise stated. References in this presentation to a 'joint venture' are used for convenience to collectively describe assets that are not wholly owned by BHP. Such references are not intended to characterise the legal relationship between the owners of the asset.

# BHP: Sector leading assets across our commodities

We are actively managing our portfolio for long-term value creation through the cycle

## Maximising value



**Iron ore** Lowest cost major producer<sup>1</sup> with expansion potential if market conditions warrant



**Metallurgical coal** World-class operations producing higher quality steel-making coal

## Increasing exposure to future facing commodities



**Copper** Largest resource endowment of any company globally, amongst the highest average grade



**Nickel** Second largest nickel sulphide resource with ~90% of nickel metal sales to the electric vehicle supply chain



**Potash** Significant expansion potential to support up to a century of production in the world's best potash basin

## Demonstrated bulk logistics expertise

### Western Australia Iron Ore

FY21 material moved: **616 Mt\***  
 FY21 production: **284 Mt\***  
 >1,000 km rail  
 ~1,500 ships loaded/year



- Existing operations
- Port
- BMA terminal
- - - Rail

\*100% basis.



### BHP Mitsubishi Alliance

FY21 material moved: **2,081 Mt\***  
 FY21 production: **64 Mt\***  
 ~50 years working with third party rail  
 ~760 ships loaded/year



# Potash and Jansen fit our strategy

Modern, long-life, expandable will support long-term value and returns



## Attractive future facing commodity

- Reliable base demand leveraged by population growth and higher living standards
- Low emission, biosphere friendly and positively leveraged to decarbonisation
- Strong fundamentals and mature existing asset base offers an attractive entry opportunity



## World class asset

- Increases diversification of commodity, customer base and operating footprint for BHP
- Long-life asset in a stable mining jurisdiction
- Provides a platform for growth via potential capital efficient expansions



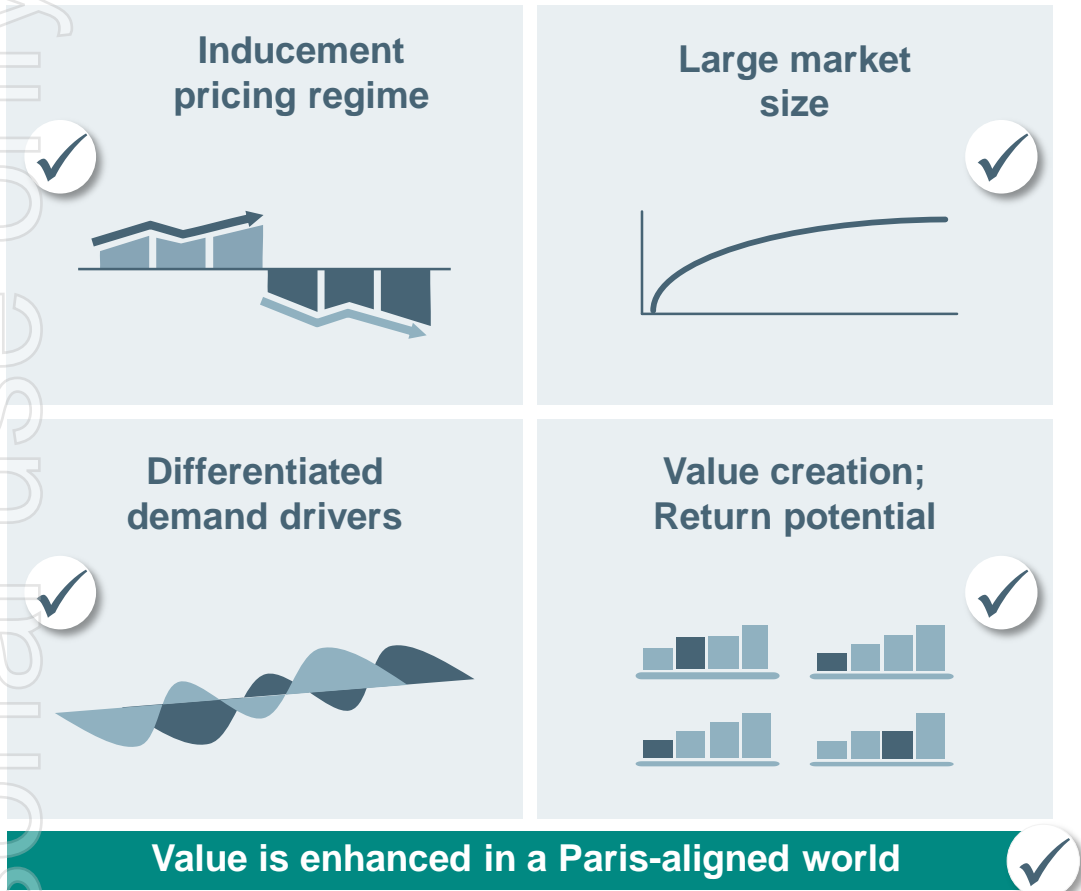
## Operational excellence; leadership on Social Value and sustainability

- Utilisation of latest design and technology
- First Nations agreements, and targeting 20% indigenous employment<sup>2</sup>
- Aspirational goal for a gender balanced workforce
- Low water footprint and emissions embedded in design

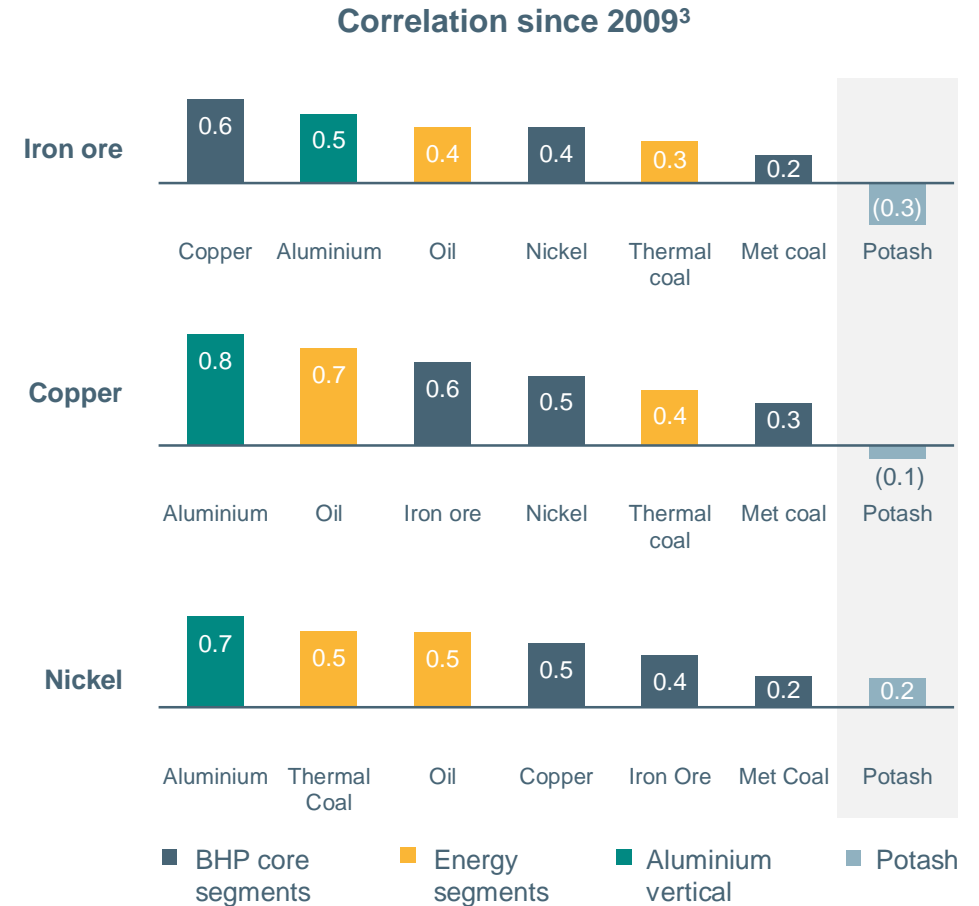
# Potash delivers value growth and differentiation

A future facing commodity with attractive long term fundamentals and differentiated demand drivers

Potash market has highly attractive characteristics



Potash provides differentiated demand drivers

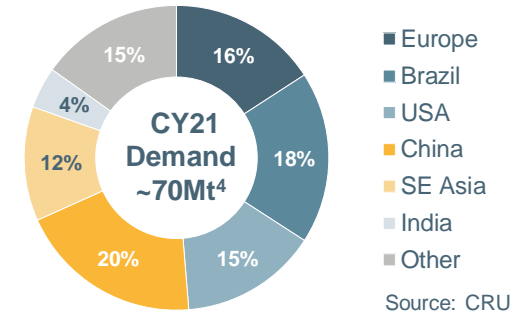


# Risks and opportunities on the road to entry

Overall market changes are positive for Jansen S1 economics

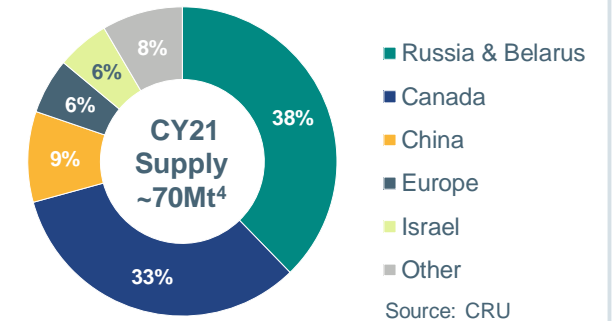
## Demand response to scarcity price?

- Near term consumption impacted by *shipping constraints*
- Firm demand from food exporters/potash importers
- Food security concerns to influence sovereign behaviour



## Supply response to scarcity price?

- Earlier than anticipated draw in latent capacity
- Project pipeline is the key unknown for the medium to longer term



## Impact on the window of concern to Jansen?

- Pre-invasion, market was expected to reach a **balance in late 2020s**
- High conviction that long run pricing will reflect the cost of developing **new greenfield supply**
- LRMC<sup>5</sup> estimates of the market may move upwards, reflecting industry inflation and cost of capital



# Stage 1 execution on track

Contingencies built in for Stage 1, moving early to secure major capex items

## Early progress

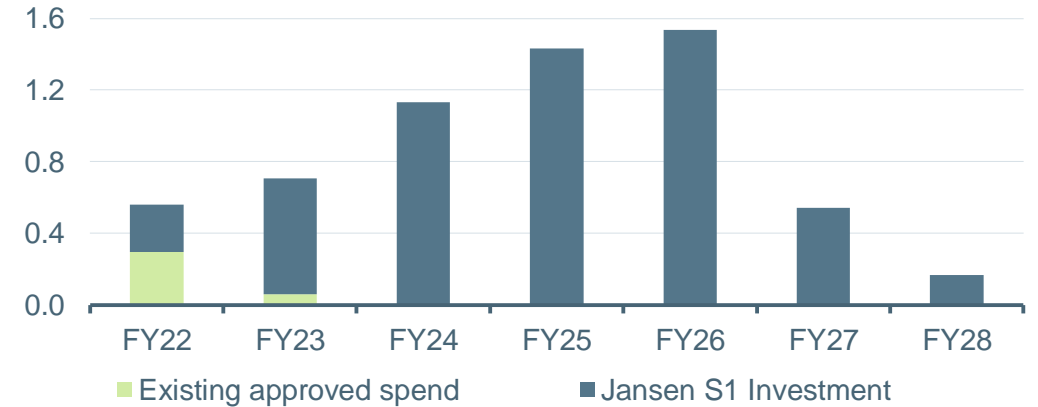
- Jansen S1 US\$5.7 bn (C\$7.5 bn) project is 5% complete following August 2021 sanction
- ~US\$1.4 bn in contracts awarded, covering the port, underground mining systems and other construction activities
- Port Engineering, Procurement and Construction Management contractor awarded
- US\$2.97 bn shaft project 99% complete

## Well scoped capital budget

- >55% of engineering completed
- >60% of procurement agreements executed
- Fixed project capex for port at Westshore
- Exposure to supplied and fabricated steel only ~US\$200 m

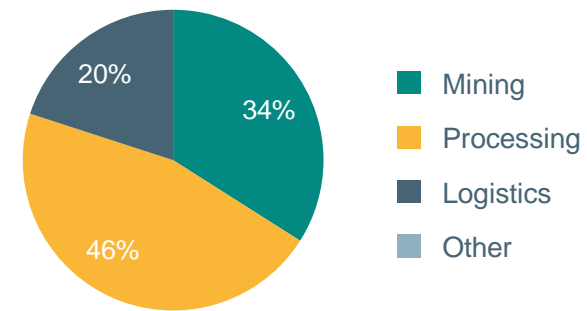
## Investment spend profile

(US\$ billion)



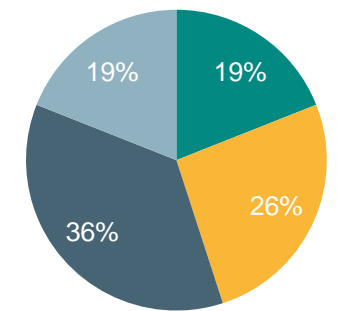
## Capital cost breakdown

(US\$5.7 billion, %)



## Cash cost breakdown

(~US\$100/t FOB Vancouver, %)

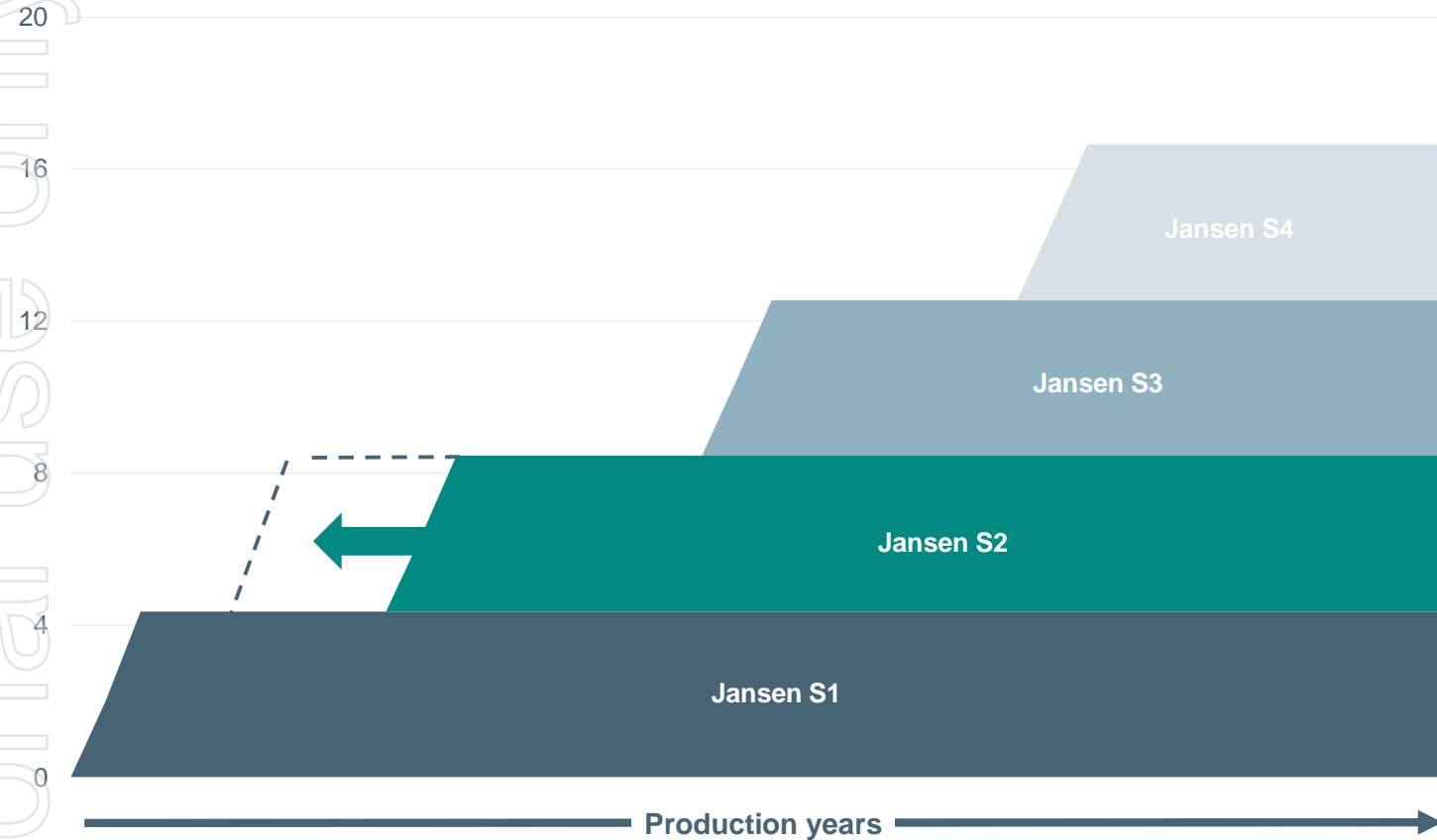


Note: FOB - Free On Board.

# Stage 2 studies underway

Stage 2 studies being accelerated to provide maximum optionality on sanction timing

Estimated production from potential incremental stages beyond Jansen S1<sup>6</sup>  
(MOP Production, Mt)



Lower capital intensity	Higher incremental returns <sup>10</sup>
US\$800-950/t <sup>7</sup>	20-23% IRR <sup>11</sup> 3-4 year payback
US\$800-900/t <sup>8</sup>	18-20% IRR <sup>12</sup> ~4 year payback
US\$1,200/t <sup>9</sup>	12-14% IRR <sup>13</sup> 7 year payback

# Jansen has structural competitive advantages

Modern, large scale conventional mine with modern design providing platform for future growth

## Geology & Resource



**Upfront geological information**

Full life of mine planning of resource leveraging 3D seismic technology

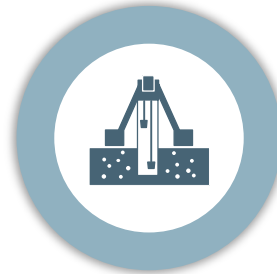
## Mining system



**~60% less equipment delivers lower costs**

Larger borers make a unique, integrated mining system

## Hoisting



**Shaft design ~20-50% larger than competitors**

Large capacity supports low capital intensity expansion options

## Processing



**Leading equipment and material handling systems**

Modern plant design delivers high recoveries, lower emissions and water use

## Outbound logistics



**Continuous, automated loading system**

Efficient path to market with significant expansion potential

Our approach to social value and environmental stewardship underpin Jansen's development

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# Scale and latest technology deliver an advantage

Approach drives sustainable cost, safety and emissions benefits

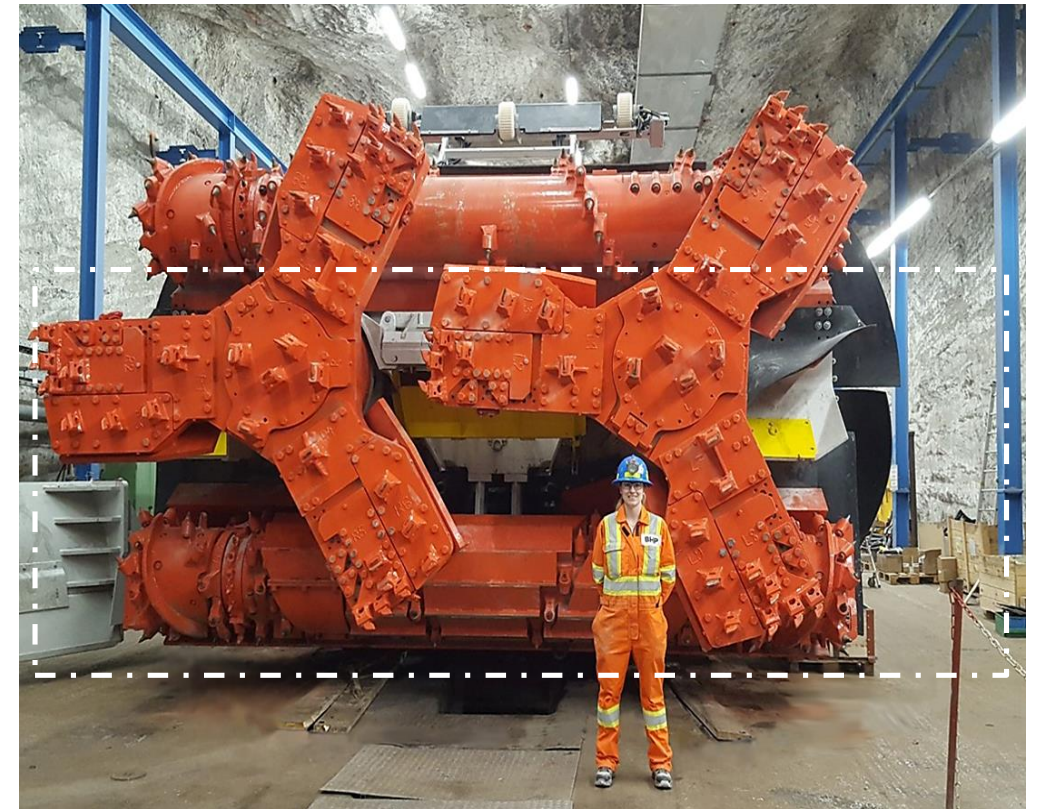
## Larger sized borers, continuous conveyance and automation

- Existing technology, adapted and scaled into a unique integrated mining system
- Four mining systems produce equivalent of 10 to 14 standard systems
  - Higher capacity systems mean fewer active mining faces
  - ~60% less fleet creates ~10% operating cost saving

## Shaft diameter is 20% to 50% larger than competitors'

- 7.3m shaft diameter removes need to sink future ventilation shafts over the life of mine even if Stages 2-4 are sanctioned
- Available hoisting capacity delivers economies of scale and lower capital intensity expansion options
- Production hoists equipped with latest safety systems and rope monitoring technology

## Photo of Jansen borer at mining trial



Dotted line indicates typical conventional borer height

# Efficient plant design and path to market

Optimised for increased recovery and plant utilisation, with outbound logistics to support Jansen S1 and beyond

## Processing plant

- ~92% recovery rate; expected to be higher than peers
- Setting a new benchmark for equipment and decision automation
  - Fully integrated process control from borer to train load-out
  - 3x the number of process sensors and 10x the machine health monitoring sensors vs. next largest producer in Saskatchewan
  - Fully automated raw ore and product reclaim

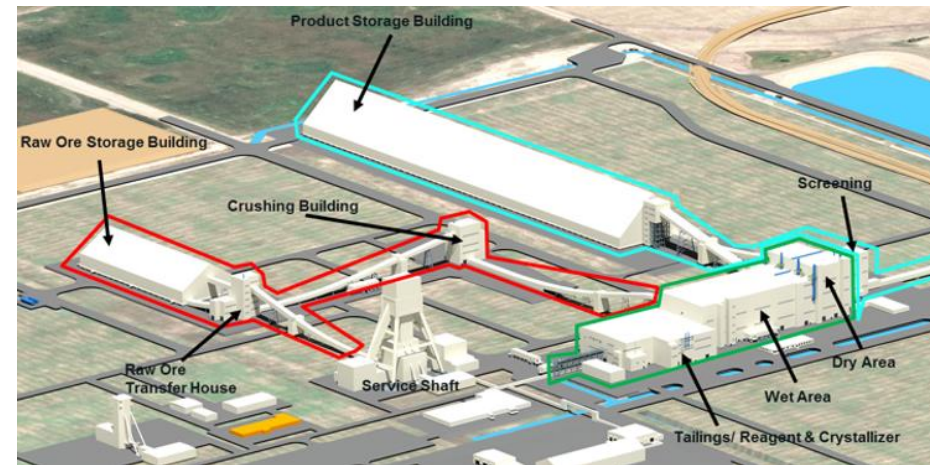
## Rail

- Continuous high-speed loading and unloading systems to maximise efficiency and reduce loading and unloading times
- BHP to operate with dedicated fleet of rail cars

## Port

- Long-term partnership with Westshore Terminals to develop facilities, offering deep water and best-in-class rail access in Port of Vancouver
- Westshore's transition to Potash will serve Jansen S1 and potential S2 production, with significant expansion potential

## Processing sub-areas render



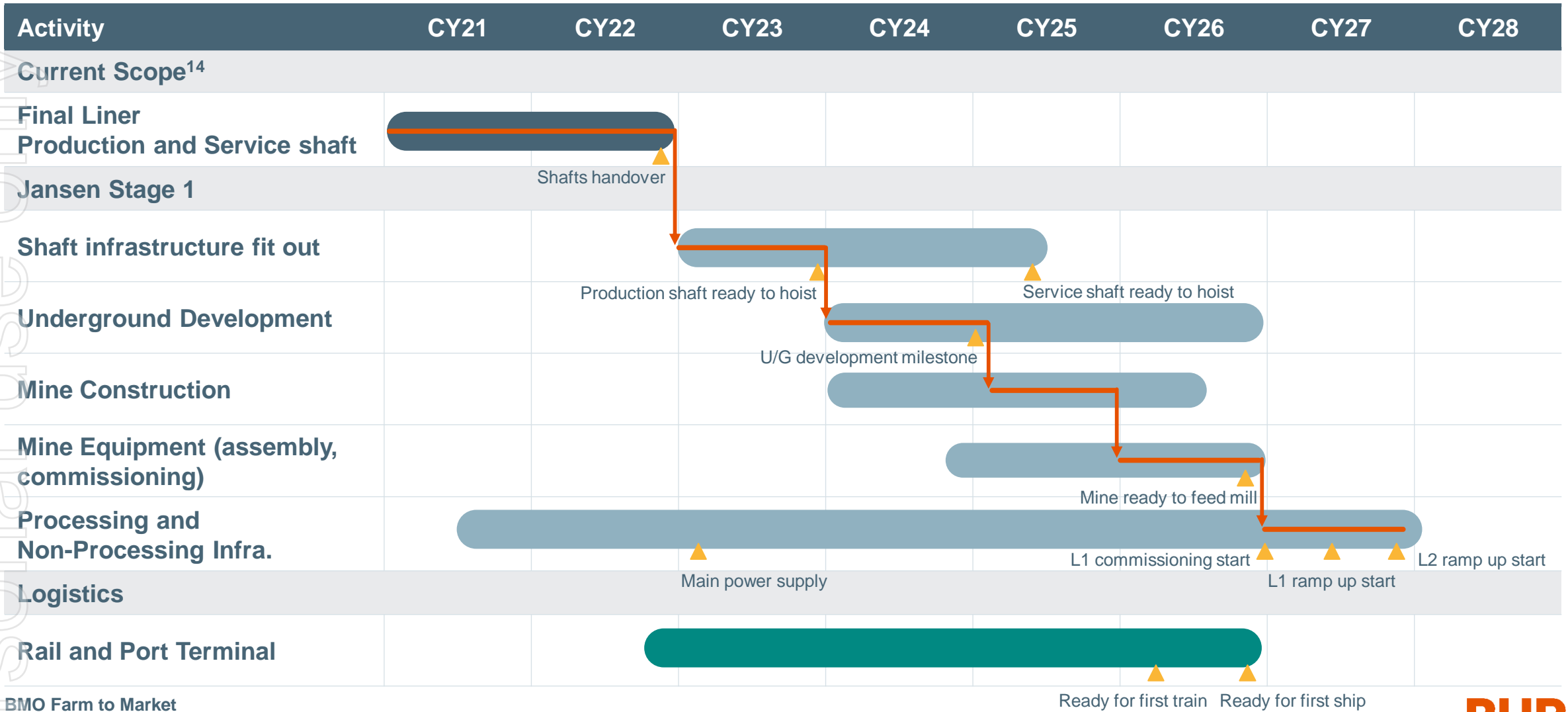
## Location of Westshore Terminal ~2,000km from Jansen



# Confident in optimised construction schedule

6 year construction period to first production followed by a 2 year ramp-up for Stage 1

— Critical Path

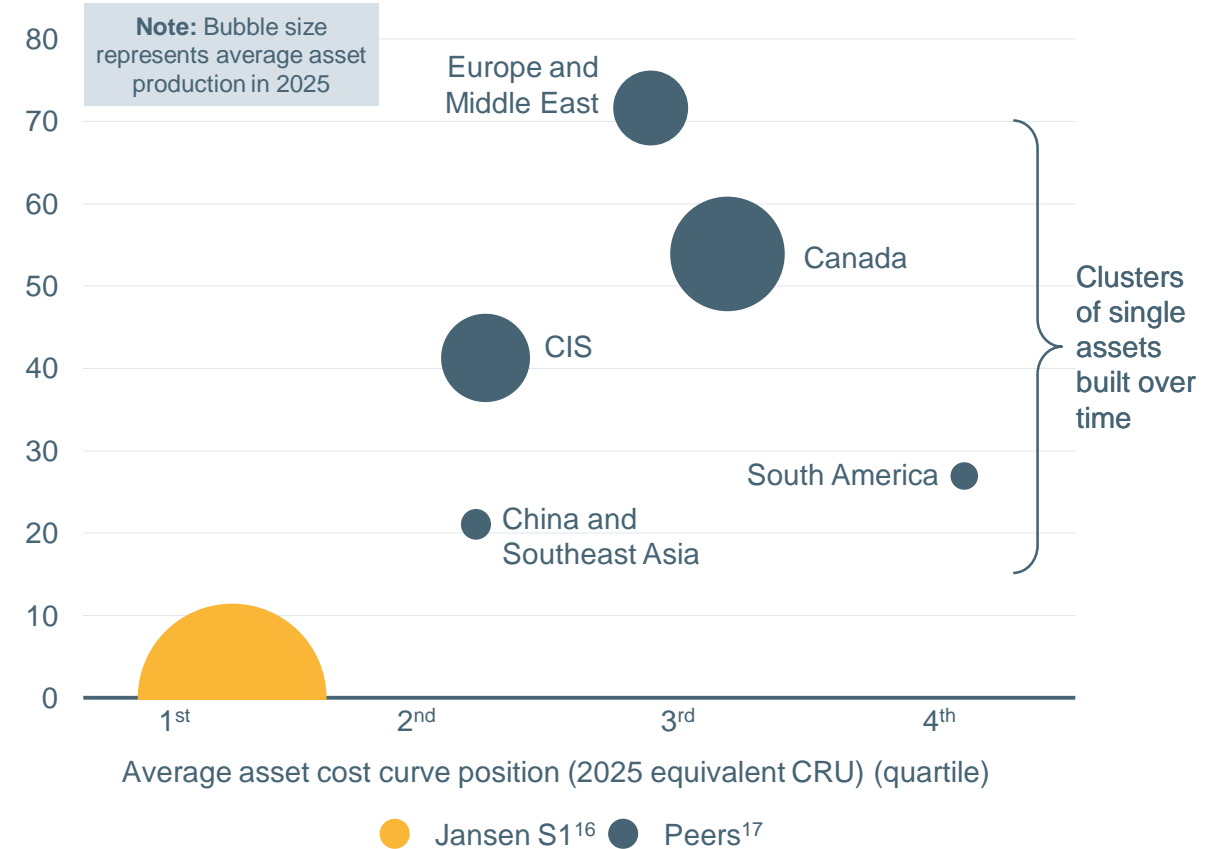


# Jansen expected to become a world class asset

Jansen S1 to be a large, low cost asset that will enter the market at the bottom of the global cost curve<sup>15</sup>

<b>Well defined</b>	Initial investment US\$5.7 bn / C\$7.5 bn
<b>Large scale production</b>	4.35 Mtpa
<b>Hard-to-replicate design</b>	Across mining system and processing
<b>Low-cost</b>	~US\$100/t FOB Vancouver ~US\$15/t sustaining capex
<b>Embedded optionality</b>	Potential expansions de-risked by existing shaft capacity

**Jansen S1's competitive position against peers**  
(Average asset age in 2025)



Source: BHP; CRU.

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## Appendix

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# Footnotes

1. Slide 3: Based on published unit costs by major iron ore producers, as reported at 31 December 2021.
2. Slide 4: Aiming to achieve Indigenous workforce participation of 20% by the end of FY27.
3. Slide 5: Correlation based on changes in average quarterly prices from Q2 2009 to Q1 2022.
4. Slide 6: CY21 MOP supply and demand sourced from CRU.
5. Slide 6: LRMC refers to long run marginal cost.
6. Slide 8: Production target for Stage 1 is based on reported Ore Reserves. Potential incremental stages 2-4 are based on Measured Resources. Mineral Resources and Ore Reserves are included in the news release published on 17th August 2021, available to view at [www.bhp.com](http://www.bhp.com). The execution of future stages would be subject to our review of supply and demand fundamentals and successful competition for capital under our Capital Allocation Framework.
7. Slide 8: Expected Capital Intensity Jansen S3-4, US\$/product tonne, Real 1 July 2021.
8. Slide 8: Expected Capital Intensity Jansen S2, US\$/product tonne, Real 1 July 2021. Values do not reflect an accelerated Jansen S2 case.
9. Slide 8: Expected Capital Intensity Jansen S1, US\$/product tonne, Real 1 July 2021.
10. Slide 8: Based on the yearly average of forecast December 2021 (Argus) and February 2022 (CRU) consensus prices. Long-run Argus and CRU consensus prices are US\$350/tonne and US\$505/tonne, respectively.
11. Slide 8: Expected Jansen S3-S4 IRR of investment decision across ~100 year mine life analysis was conducted using December 2021 (Argus) and February 2022 (CRU) consensus prices. Jansen S3-S4 IRR is post tax and nominal.
12. Slide 8: Expected Jansen S2 IRR of investment decision across ~100 year mine life analysis was conducted using December 2021 (Argus) and February 2022 (CRU) consensus prices. Jansen S2 IRR is post tax and nominal. Values do not reflect an accelerated Jansen S2 case.
13. Slide 8: Expected Jansen S1 IRR of investment decision across ~100 year mine life analysis was conducted using December 2021 (Argus) and February 2022 (CRU) consensus prices. Jansen S1 IRR is post tax and nominal, and excludes remaining funded investment of ~US\$0.35 billion (as at September 2021) for completion of the shafts and installation of essential service infrastructure and utilities.
14. Slide 12: Project scope includes finishing the excavation and lining of the production and service shafts, and continuing the installation of essential surface infrastructure and utilities.
15. Slide 13: Figures on this slide refers to Jansen S1; Jansen S1 sustaining capex +/-20% on any given year.
16. Slide 13: Jansen S1 production begins in CY27. Jansen S1 forecast to be first quartile when it reaches full production.
17. Slide 13: Canada excludes Jansen.

# Jansen Reserves and Resources

**Table 1. Jansen Mineral Resources (inclusive of Ore Reserves) as at 30 June 2021 in 100% terms reported in accordance with ASX Listing Rules 2019**

Ore type	Measured Resources				Indicated Resources				Inferred Resources				Total Resources			
	Mt	% K <sub>2</sub> O	% Insol.	% MgO	Mt	% K <sub>2</sub> O	% Insol.	% MgO	Mt	% K <sub>2</sub> O	% Insol.	% MgO	Mt	% K <sub>2</sub> O	% Insol.	% MgO
LPL	5,230	25.6	7.7	0.08	-	-	-	-	1,280	25.6	7.7	0.08	6,510	25.6	7.7	0.08

**Table 2. Jansen Ore Reserves as at 30 June 2021 in 100% terms reported in accordance with ASX Listing Rules 2019**

Ore type	Proved Reserves				Probable Reserves				Total Reserves				Reserve life (years)	BHP interest (%)
	Mt	% K <sub>2</sub> O	% Insol.	% MgO	Mt	% K <sub>2</sub> O	% Insol.	% MgO	Mt	% K <sub>2</sub> O	% Insol.	% MgO		
LPL	-	-	-	-	1,070	24.9	7.5	0.1	1,070	24.9	7.5	0.1	94	100

**Notes:**

- The information in this report relating to Mineral Resources and Ore Reserves is based on and fairly represents information and supporting documentation compiled by B Németh MAusIMM ), O Turkekul (APEGs) for Mineral Resources, and J Sondergaard ( MAusIMM ) for Ore Reserves. All Competent Persons are members of the Australasian Institute of Mining and Metallurgy AusIMM ) or a 'Recognised Professional Organisation' (RPO) included in a list that is posted on the ASX and Joint Ore Reserves Committee websites. All Competent Persons are employees of BHP and have sufficient experience that is relevant to the style of mineralization, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. All Competent Persons confirm that they have no conflict of interest, perceived or otherwise, and consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.
- The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves.
- Mineral Resources are stated for the Lower Patience Lake (LPL) potash unit. A seam thickness of 3.96 metres from the top of the 406 c lay seam was applied.
- Measured Resources grade has been assigned to Inferred Resources.
- 25.6 %K<sub>2</sub>O grade is equivalent to 40.5 %KCl content using the mineralogical conversion factor of
- MgO % is used as a measure of carnallite (KCl.MgCl<sub>2</sub>.6H<sub>2</sub>O) content where per cent carnallite equivalent = % MgO x 6.8918.
- Tonnages are reported on an in situ moisture content basis, estimated to be 0.3%.
- Tonnages are rounded to nearest 10 million tonnes.

Note: for further detail please refer to Please refer to Mineral Resources and Ore Reserves as reported in the 17 August 2021 news release, available to view on [www.bhp.com](http://www.bhp.com) and are reported in 100 per cent terms. Competent Persons are B Németh (MAusIMM) and O Turkekul (APEGs) for Mineral Resources, and J Sondergaard (MAusIMM) for Ore Reserves.

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