BHP

Jansen briefing
15 September 2021

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A top tier asset in a future facing commodity

Rag Udd
President Minerals Americas

Jansen fits our strategy

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

Attractive future facing commodity

- Exposure to global mega trends
- A low emission, biosphere friendly fertiliser
- Attractive fundamentals, supply-driven market, reliable base demand with attractive upside

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[1]
- Aspirational goal for a gender balanced workforce
- Low water footprint and emissions embedded in design

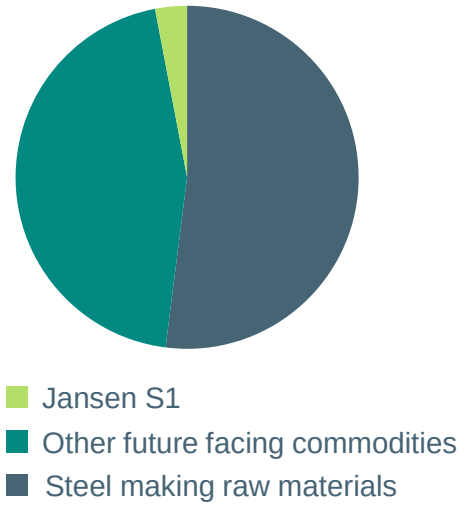
Our portfolio benefits

Potash increases BHP's diversification of demand drivers, customer base and operating footprint

Differentiated
Demand drivers

- Potash is not strongly correlated with broader economic and commodity cycles
- Benefits from a decarbonising world, cumulative demand would more than double in the next 30 years under our 1.5 degree scenario[2]

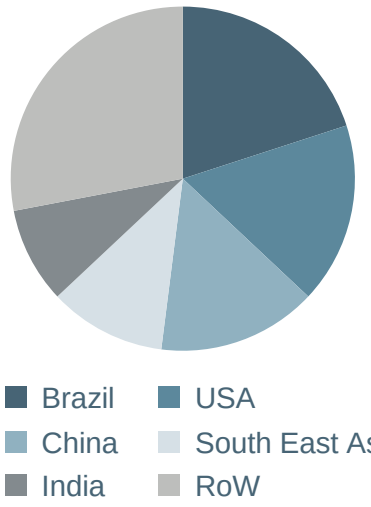
2030 revenue by demand drivers[3]



Diversified
Customer base

- Potash market is globally diverse, with >35% made up by Brazil and USA
- Differs from BHP's existing commodity exposures

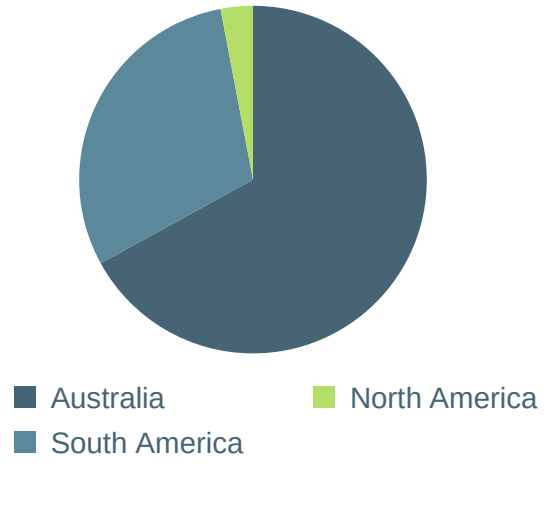
Typical customer base for potash[4]



Increased
Operating footprint

- Increases geographic diversification of portfolio
- Operating exposure to Canada, a leading, stable mining jurisdiction

2030 operating footprint[5]



Jansen S1 is resilient with through the cycle returns

Margins and returns expected to be robust even under short-run marginal cost scenarios

EBITDA margin

~70%

Underlying EBITDA margin[6]

IRR

12-14%

Stage 1 Internal Rate of Return[7]

Payback

7 years

from 1st production

Operating Cost

~US$100/t

bottom of the cost curve

Optionality

Stage 2-4

Low capital intensity, higher returning expansion potential

Carbon Emissions

Low

CO_2 Scope 1 and 2[8] emissions; Scope 3[9] low relative to other fertiliser products

Note: Operating costs based on FOB Vancouver.

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

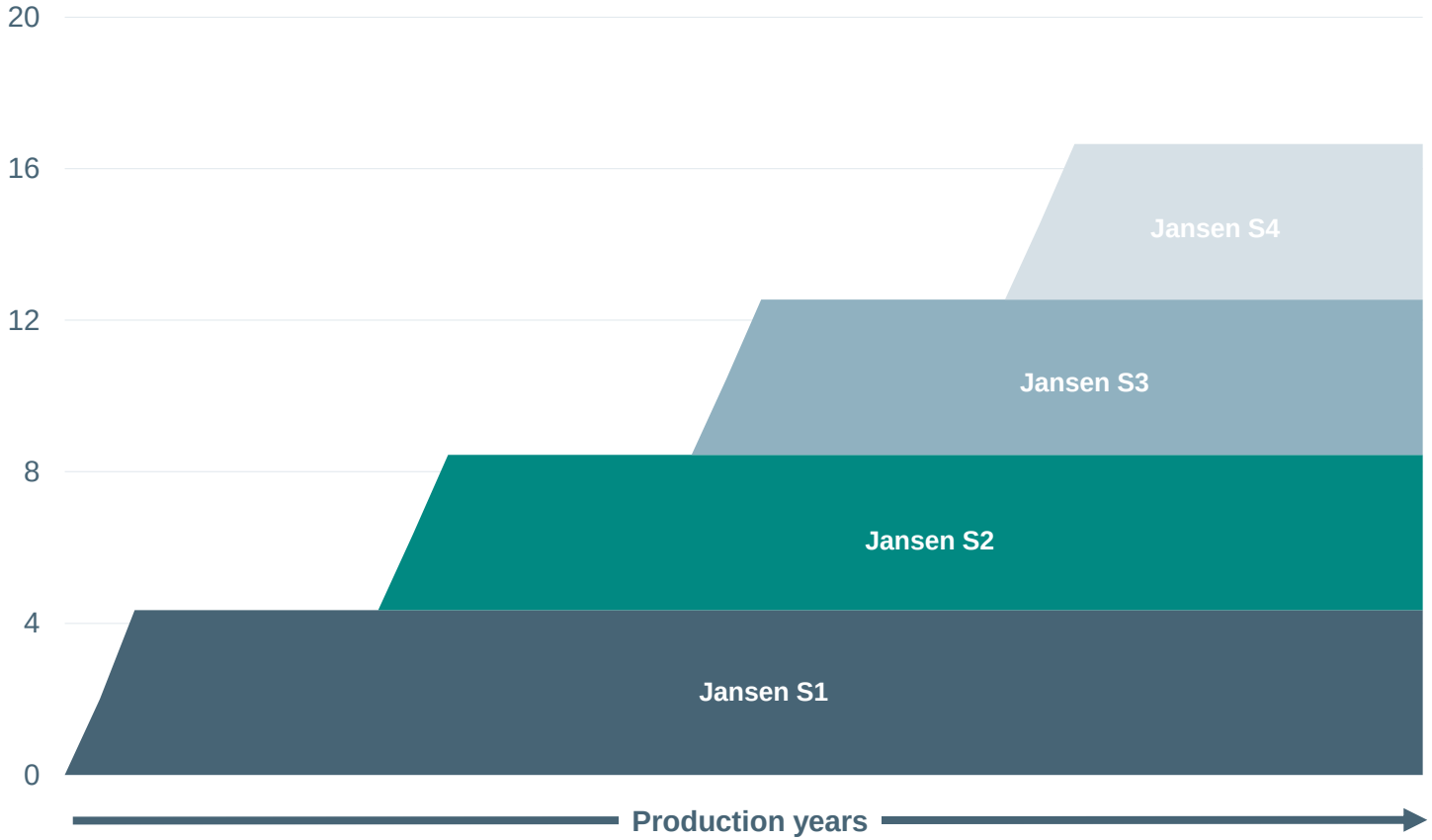
With port now secured Jansen has a path to market for its product

Our approach to Social Value and environmental stewardship underpin Jansen's development

Jansen S1 provides a platform for growth

Stages 2-4 would make Jansen one of the world's largest potash operation [10]

Estimated production from potential incremental stages beyond Jansen S1[11]
(MOP Production, Mt)



Lower capital intensity	Higher incremental returns
US$800 - 900/t[12]	18-20% IRR[14] ~4 year payback
US$1,200/t[13]	12-14% IRR[15] 7 year payback

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Potash market outlook

Dr Huw McKay
Chief Economist

Potash fundamentals: key messages

A future facing commodity with attractive long term fundamentals from multiple angles

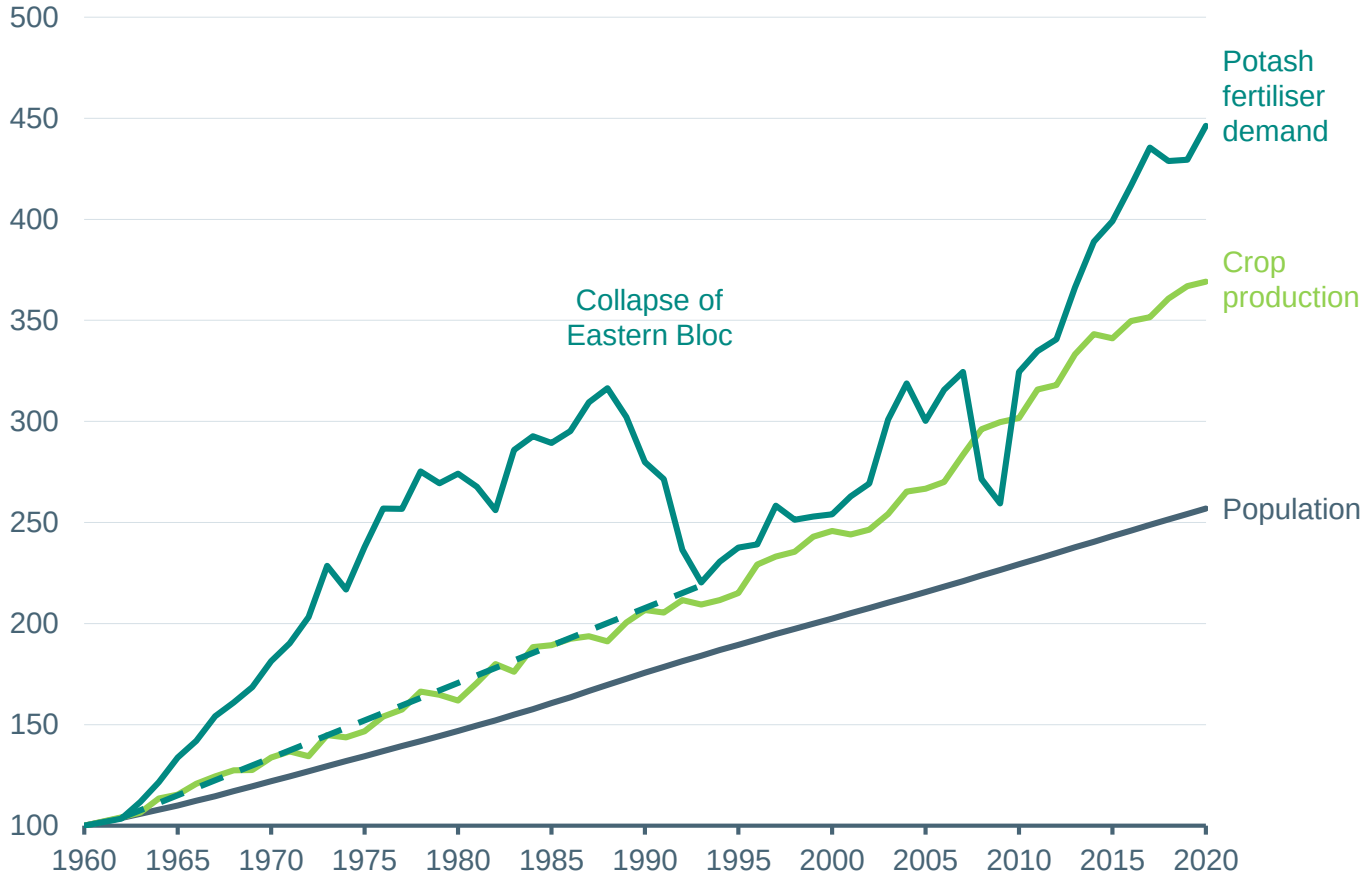
A Future Facing Commodity	• Potash sits at the **intersection** of **global demographic, social and environmental megatrends** • The **environmental footprint of potash** is **considerably more attractive** than other major chemical fertilisers • Conventional mining with flotation is **more energy and water efficient** than other production routes
Reliable base demand with attractive upside	• Traditional demand drivers of **population** and **diet** are reliable and slow moving • Attractive upside over basic drivers exists due to the **rising potash intensity-of-use** needed to support **higher yields** and offset **depleting soil fertility** • On top of the already compelling case, decarbonisation could amplify demand upside[16]
Demand to catch-up over the course of the 2020s	• **Demand is catching up** to excess supply, and major **supply basins are mature** • Price formation regime accordingly expected to transition from current SRMC to **durable inducement pricing,** with Canada well placed to meet market growth longer term at LRMC in the mid $300s • Post the balance point, long-run geological and agronomic arguments skew probabilistic risks upwards (LRMC plus fly-up) rather than downwards (SRMC), in our view

Note: Short Run Marginal Cost (SRMC); Long Run Marginal Cost (LRMC).

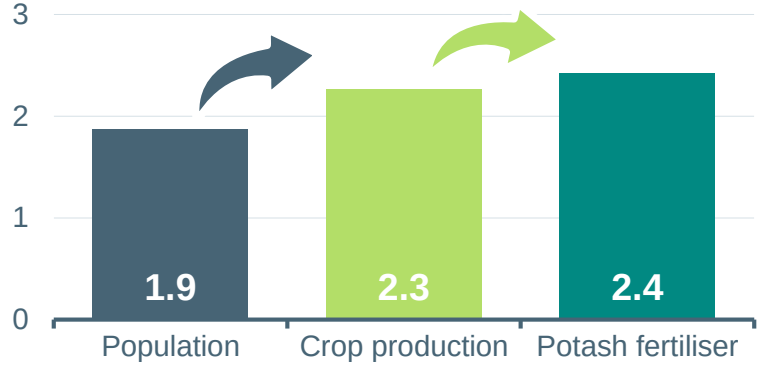
Fundamental relationships are extremely reliable

Crop production growth has exceeded population growth historically: potash has in turn exceeded growth in crop production

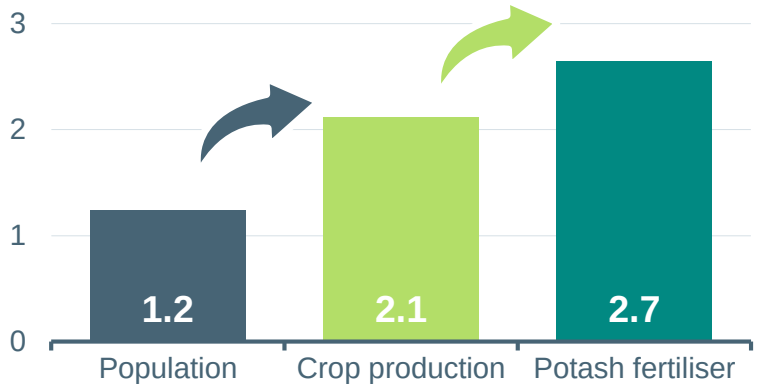
Population up ~2.5 fold since 1960, crops ~3.5 fold, potash ~4.5 fold
(Index, 1960 = 100)



CAGR, 1960-1993
(%)



CAGR, 1993-2020
(%)

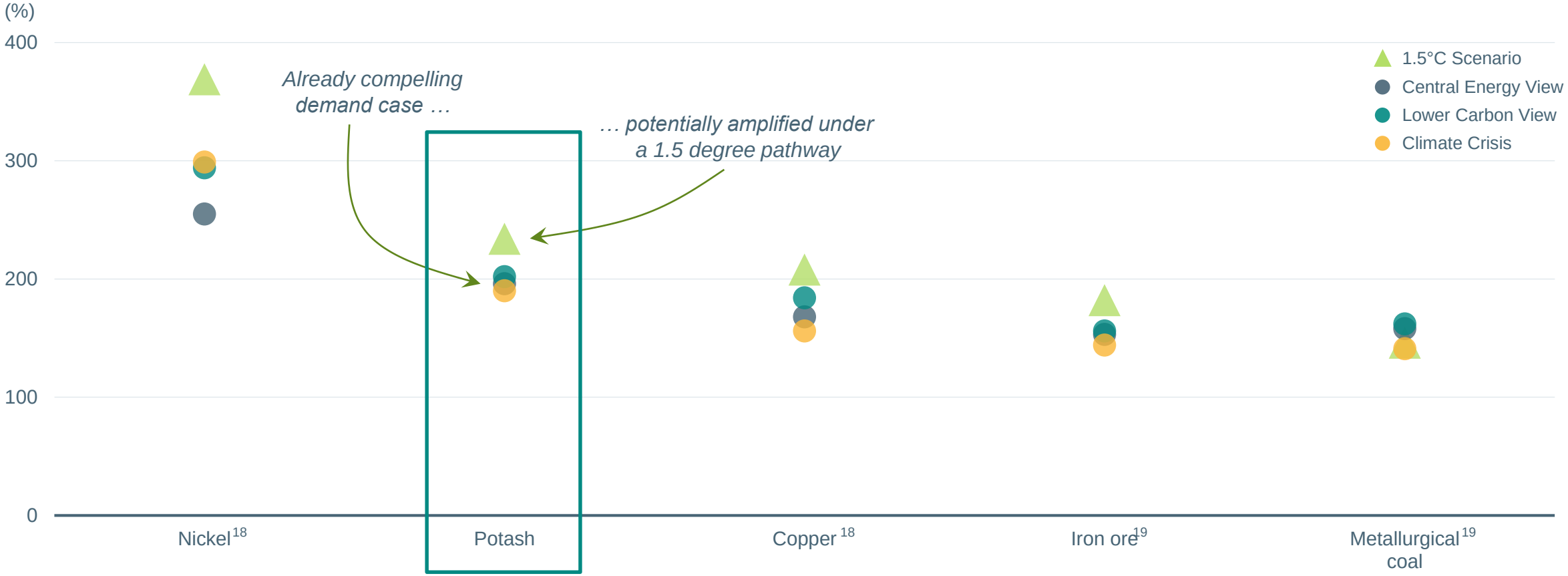


Data: UN World Population Prospects 2019; International Fertilizer Association; BHP analysis based on multiple sources.
Note: 'potash fertiliser demand' relates to estimated underlying consumption at the farm-level rather than to upstream MOP shipments.

Potash benefits in a decarbonising world

Rising biofuels production and land use implications of afforestation burnish an already attractive potash demand profile

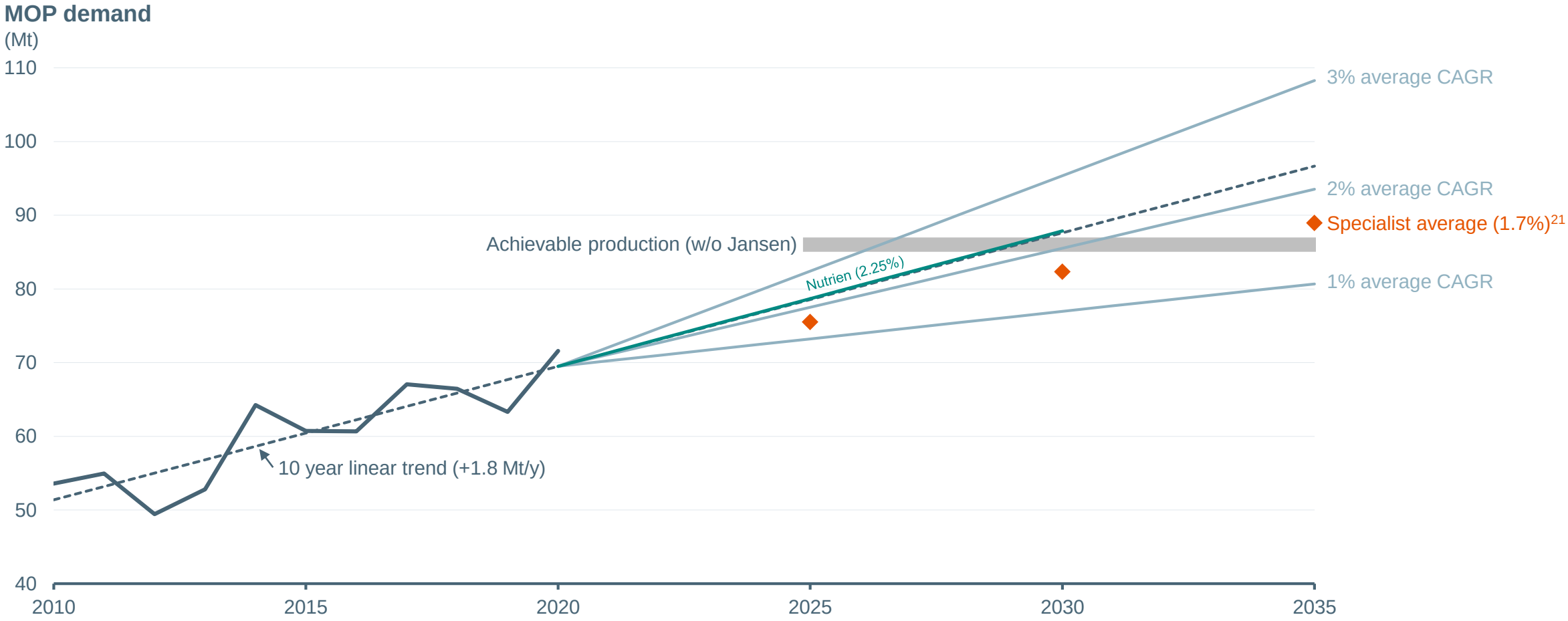
Cumulative demand expected in the next 30 years compared to the last 30 years[17]



Source: BHP; Vivid Economics.

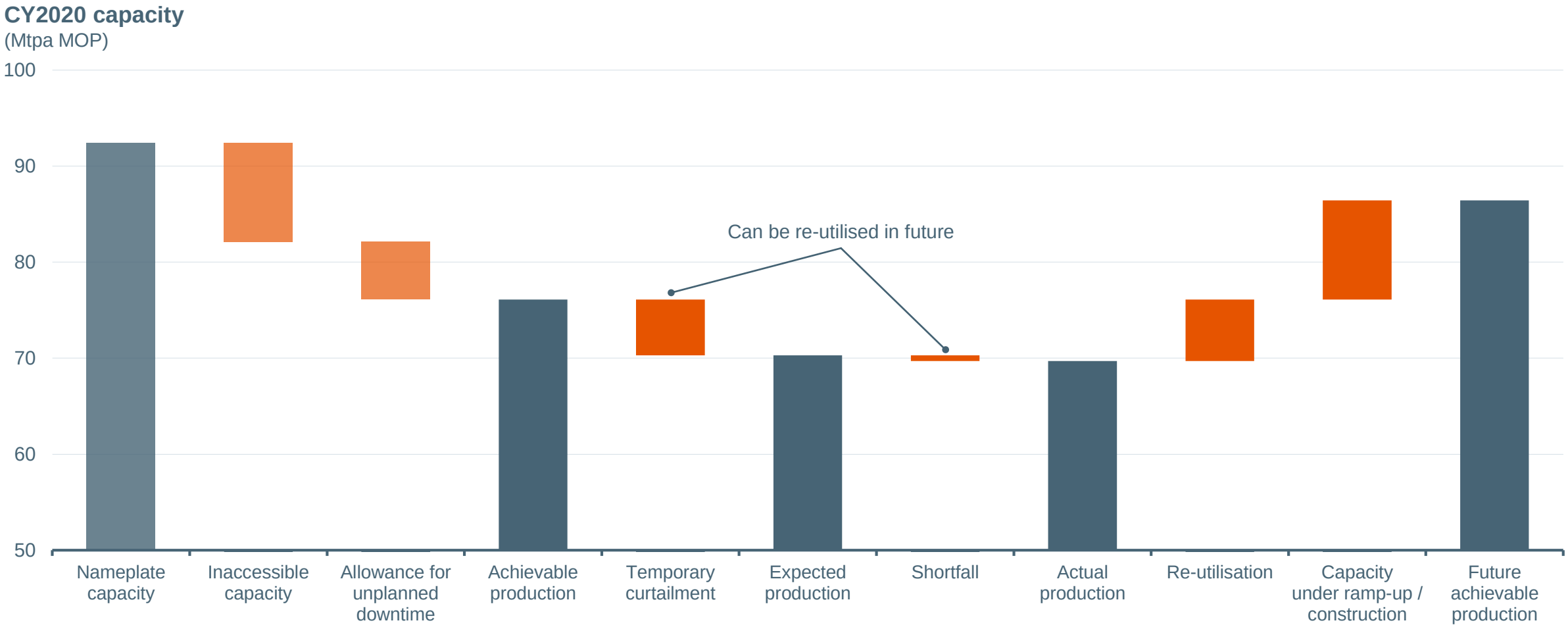
How soon will demand catch-up?

Consensus view[20] is that demand will catch-up in the late 2020s/early 2030s



Identifying available capacity from supply

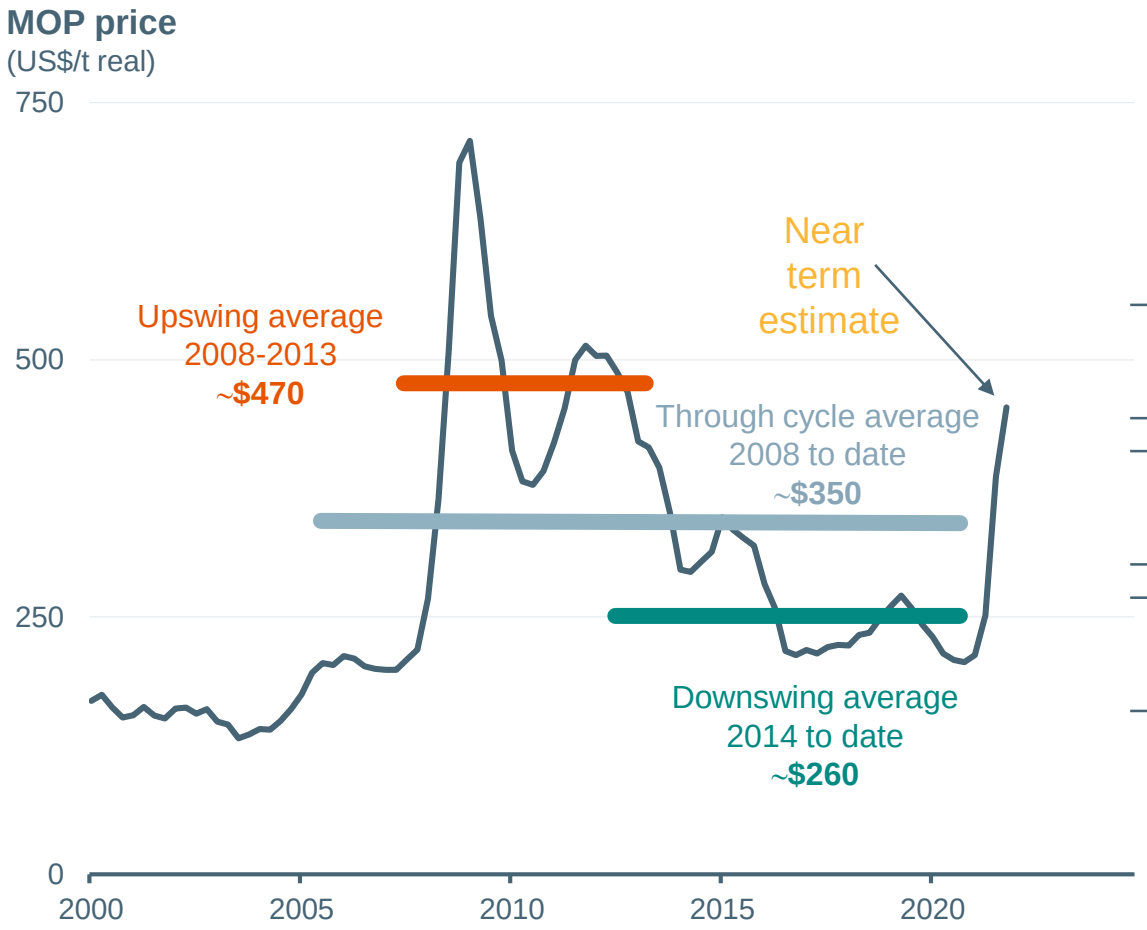
Estimated ~76 Mt Achievable Production in 2020, rising to ~86Mt with forthcoming additions



Data: BHP analysis based on multiple sources.

What can be expected under inducement & fly-up pricing?

Forward looking LRMC is broadly in line with through-cycle averages, considerably above SRMC experience of the last few years



Indicative of multi-year "fly-up" pricing should a strong demand-led cycle emerge with a delayed supply response from ageing basins

Long-run marginal cost (LRMC)
at mid case macro assumptions[22]

Short-run marginal cost (SRMC)
across a range of macro assumptions[23]

Data: IHS Markit. Average trade value of Canadian MOP exports.

BHP

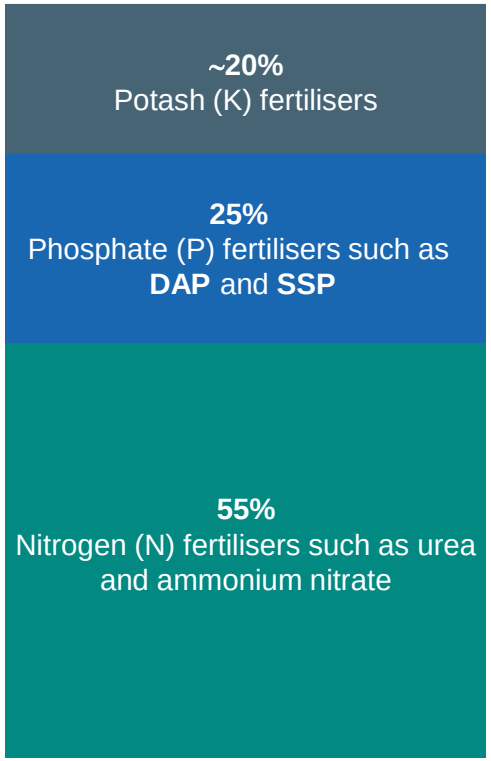
Potash marketing

Mark Swan
Head of Sales & Marketing, Potash

Fertiliser and MOP product overview

MOP is main and most economic essential source of potassium nutrient and has small environmental footprint

Consumption of primary inorganic fertilisers[24]



Consumption of potash fertilisers[25]

Outline illustrates what can be supplied by Jansen agricultural red granular and standard products

Not all fertilisers have the same environmental footprint:

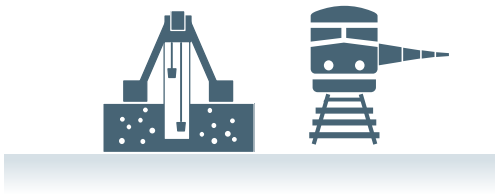
	N fertiliser	P fertiliser	MOP (flotation)
Production footprint			
Low Scope 1+2 emissions (<100kg CO_2e/t)	✗	✗	✓
Low water consumption (<1t/t)	✗	✗	✓
Consumption footprint			
High nutrient content, lower transport emissions	●[26]	●[26]	✓
No energy-intensive downstream processing	✓	✓	✓
No N_2O/CO_2 release on use[27]	✗	✓[28]	✓
No risk to waterways	✗	✗	✓
Higher yields need less cultivated virgin land[29]	✓	✓	✓

MOP market value chain overview

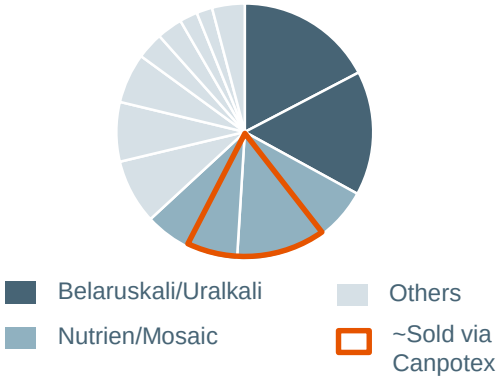
Potash producers sell vast majority of CFR directly to disaggregated and diverse global buyers

Producers

- Relatively concentrated industry
- Flexibly manage utilisation



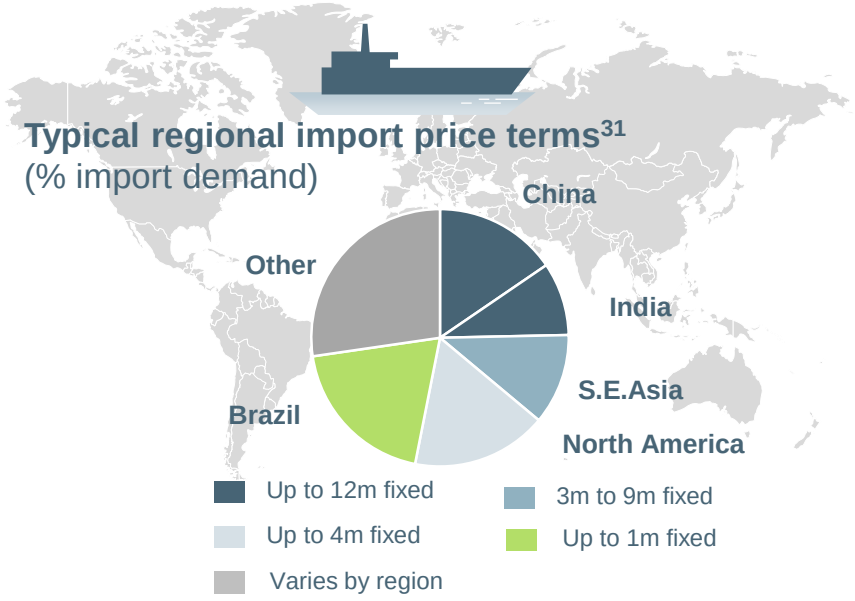
2020 potash production[30]
(% by producer)



Delivered disport CFR Sales

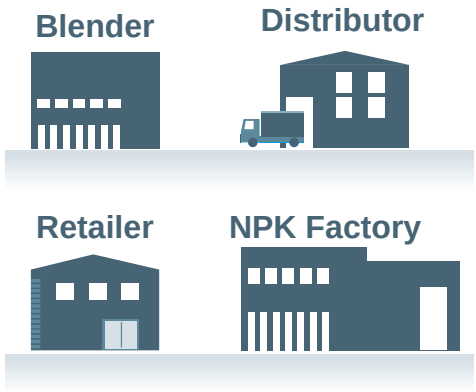
- Producers sell mostly CFR to 3rd parties (directly via regional office networks)
- Globally disaggregated and diverse buyers
- Buyer patterns and customary practices vary by region, but some terms similar to other bulks

Typical regional import price terms[31]
(% import demand)



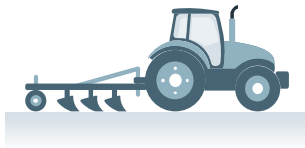
Post CFR (disport to farm)

- Complex, highly disaggregated and low barriers to entry[32]
- Insufficient to lock out others and not required to sell bulk potash
- Limited producer integration to capture downstream synergy



End Users

- Established product at 100s of millions of farms



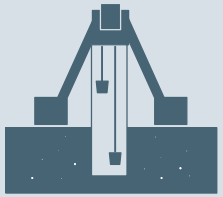
Jansen’s advantages help shape marketing approach

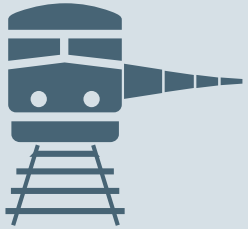
Jansen will be well positioned for entry into market and growth

Buyers welcome new independent entrant to diversify & support growth

Up to 100 years of reliable supply in stable jurisdiction

Low-cost position makes Jansen competitive through the cycle





Upstream CFR logistics and direct US rail capability provide both access and flexibility

Minimises working capital and avoids lower distribution margins

Jansen S1 to sell two established agricultural red MOP products

Majority of sales expected to be on term contract basis

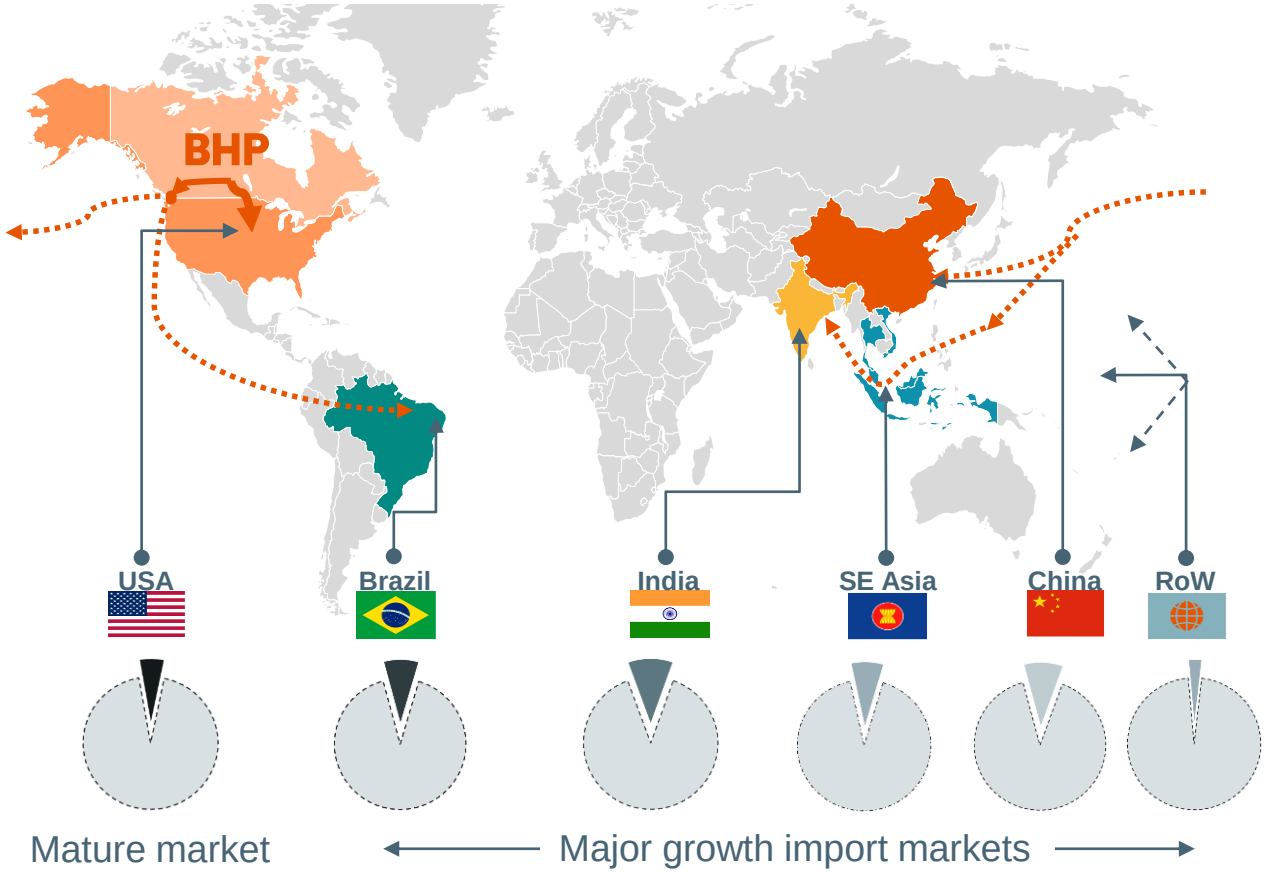
Jansen’s location and ESG credentials attractive to buyers

Positioned to capture future demand growth through potential Jansen expansions

Plan to market directly to large diverse customers

BHP to place product to dozens of large customers globally

Illustrative geographic sales mix for Jansen Stage 1 product



Illustrative Target Regions

USA
- Big stable granular region
- 50+ buyers

Brazil
- Largest growing granular region
- 50+ buyers

India
- Growing high potential standard region
- ~20 buyers

SE Asia
- Growing standard and granular region
- 40+ buyers

China
- Growing standard and granular imports
- 30+ buyers

RoW
- Many smaller standard and granular territories
- 50+ buyers

Prepared to secure sales on entry into market

Non-binding MOUs in place with major importers for up to 100% of future production

Time to grow team and relationships

- Experienced global team have established buyer relationships and secured MOUs
- Expanded team will have >5 years to prepare including growing relationships and securing binding sales
- Replicate tried and tested model of marketing directly to major customers via regional offices leveraging BHP's broader commercial resources

Marketing deliverables already well advanced

- Geographically diverse sales targeting new growth demand will help secure competitive placement and prices
- Jansen will be competitive on entry and have contingency options available

A global approach, targeting new demand in growth regions

BHP

Jansen project overview

Giles Hellyer
Vice President Operations, Potash

Jansen is in the world's premier producing potash basin

The mine footprint is within the well established conventional mining corridor

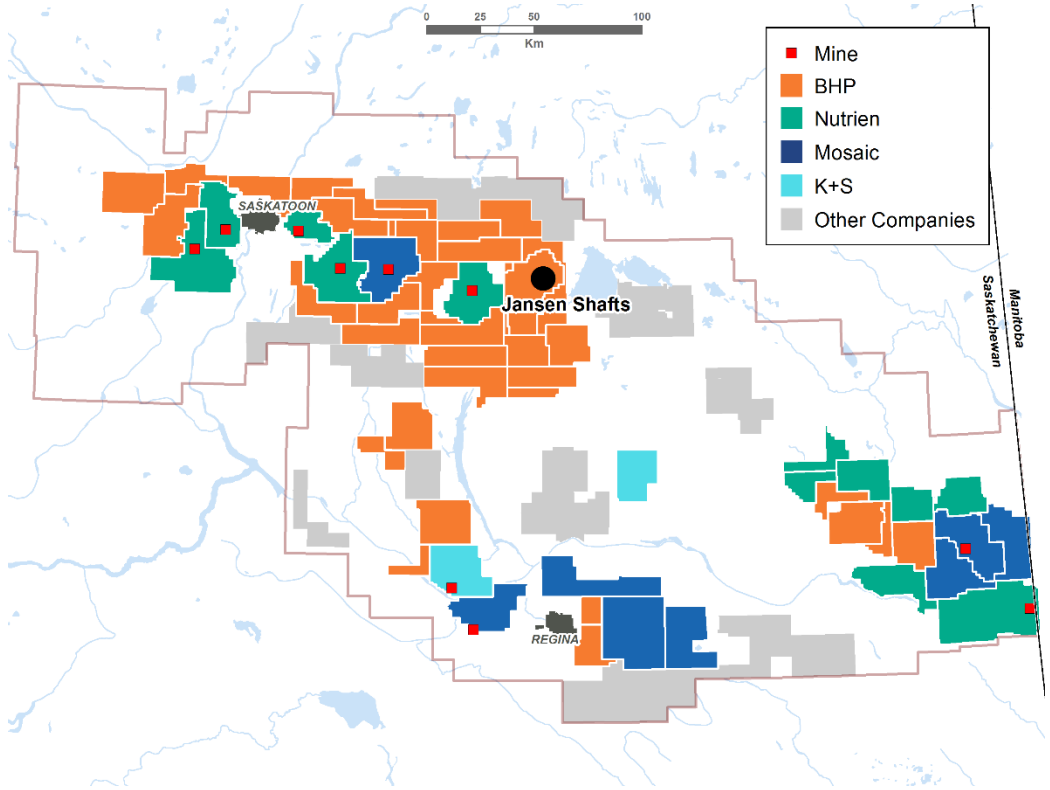
A history of potash mining

- The first potash mine opened in Saskatchewan in 1958, followed by a decade of rapid expansion and new projects
- The 2010s introduced a new era of expansion with four new shafts (Nutrien, Mosaic, BHP) and construction of a greenfield solution mine (K+S)
- Today, Saskatchewan hosts seven conventional and three solution mines, producing approximately one-third of the world's potash

BHP's approach to selecting Jansen

- BHP holds ~37% of potash mineral tenure in basin
- Exploration of the basin through drilling and 2D and 3D seismic studies helped identify Jansen as the most prospective project
- Jansen S1 marks the first step for BHP to unlock a large land position across this world class basin
- Large-scale resource supports up to 100 years of operation [34]

6.5 Bt mineral resources in world's best potash basin [35]



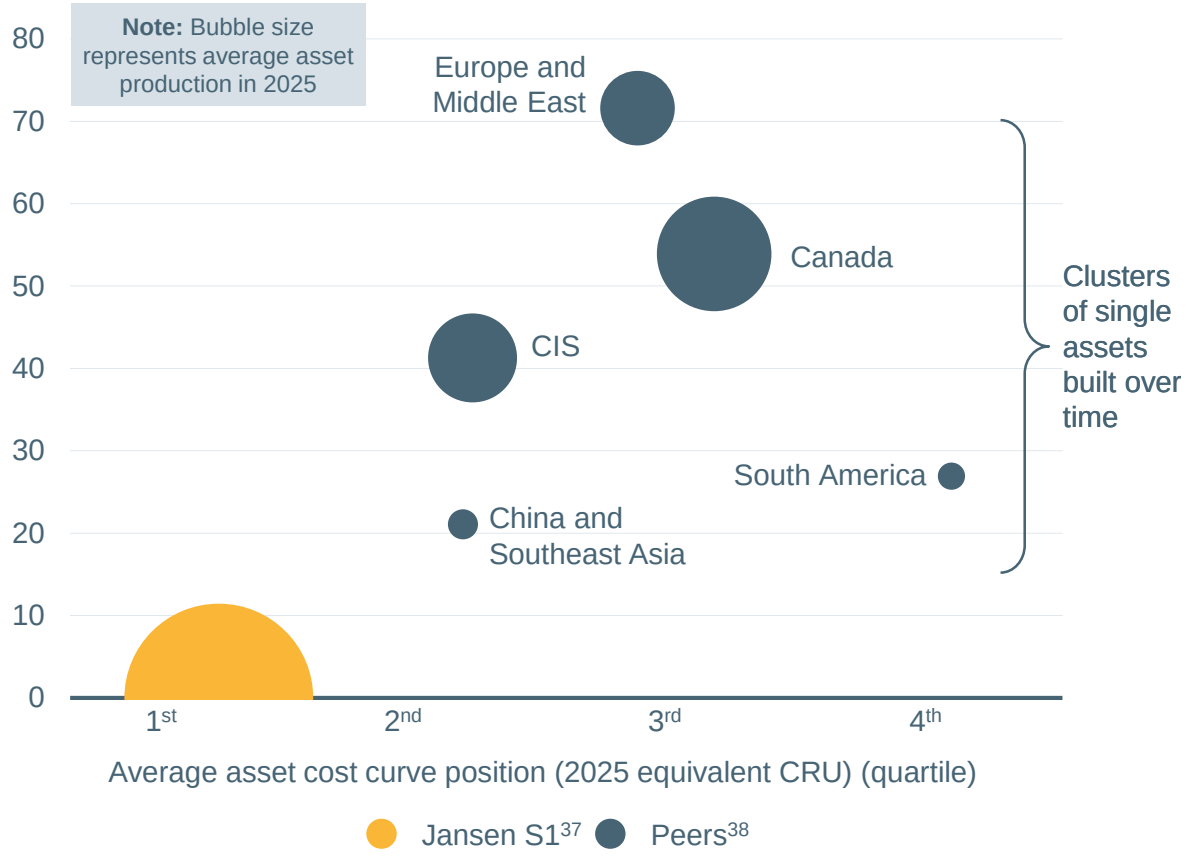
Source: BHP

Modern, high margin, long life and expandable

Jansen S1 is expected to be a large, low cost asset that will enter the market at the bottom of the global cost curve[36]

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

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



Source: BHP; CRU.

Sustainable approach to emissions and water

Greenhouse gas emissions and efficient water use a core focus for Jansen S1 and beyond

Taking steps to lower emissions at start up

- Jansen expected to emit ~50% less CO_2e per tonne of product[39] vs. average performer in Saskatchewan potash mines
- Underground mining and support fleet will be more than 80% battery electric vehicles by consumption, will pursue 100% electrification
- Pursue carbon neutral electricity through commercial partnerships
- Look to implement technologies like carbon capture and storage to mitigate natural gas emissions in processing plant

Built to minimise water usage from Day 1

- ~60% less fresh water consumed per tonne than current third party average operation due to process technology and equipment efficiency[40]
- Usage of high KCl leach brine for grade control, greater use of brine for mixing reagents both replacing water

Jansen is positioned to outperform peers

Modern design offers structural, competitive advantages

	BHP		Peer 1	Peer 2	Peer 3	Peer 4
Production[41]	Jansen stage 1 4.35 Mtpa	Jansen stage 1-4 Potential 16-17 Mtpa[42]	~13 Mtpa	~8 Mtpa	~11 Mtpa	~12 Mtpa
1 **Locations**	1	1	6	3	5	5
2 **Total shafts**	1	2	11	6	8	10
3 **Mining technology**	New borer technology *(60% less fleet)*		Conventional borer fleet			
4 **Plant design & number**	1 mill	4 identical	9 different	4 different	6 different	5 different
5 **Mine site employees**	~500	~1,200	~2,300	~1,600	~12,000	~9,700
6 **Rail cars**	Continuous, automated loading		Batch, manual loading			
7 **Port infrastructure**	1	1	3	3	1	1

Source [43] : Company reports, CRU, Fertecon, BHP analysis.

All major permits in place

Approvals will enable rapid completion and ramp up of Stage one

Major construction permits in place

Major permits

Environmental Impact Study	Approved
Conceptual Closure Plan	Approved

Other key requirements

Water rights licence	Approved
Port and Rail	In progress

Shaft progress

Final lining completion	93% complete[44]

Rail

- Commercial agreement to be negotiated with rail operators

Port

- Agreement struck with Westshore Terminal in Delta, BC Canada, ~2,000km from the Jansen site
- Agreement captures Jansen S1 and S2 production, with additional expansion potential

Shafts

- Expected completion end of CY22[44]

Competitive on costs

At nameplate capacity expected to be lowest cost producer in Canada

Well defined operating cost base

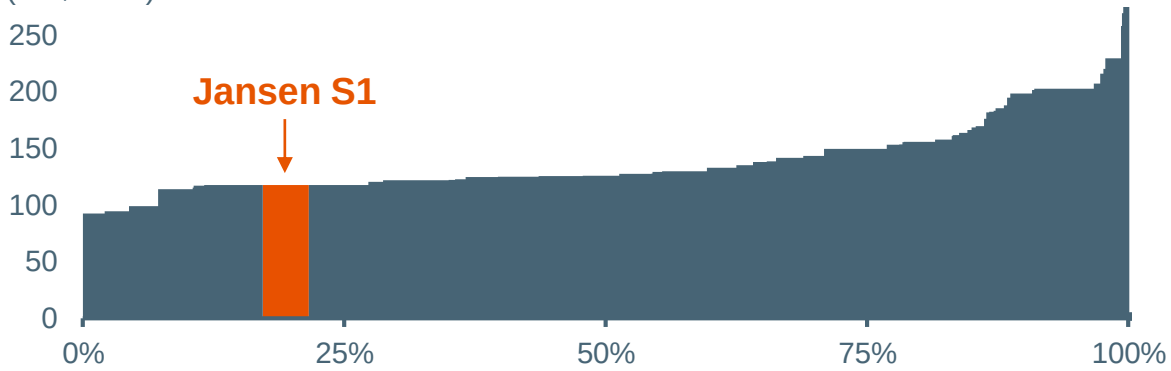
- Operating cost advantage stems from the ore body, mining method, technology and operating strategy
- Operating costs for Jansen S1 are expected to be ~US$100/t FOB with sustaining capital ~US$15/t (real) +/-20% in any given year
- Confidence in opex forecast stems from extensive study, trial mining and independent benchmarking
- Cost forecasts also include both contingency and escalation

Strong understanding of cost drivers and risks

- Canadian dollar exposure is ~85% for average life of mine on an FOB basis, including sustaining capital
- Potential inflationary pressures include labour escalation, cost of utilities like power, and carbon.

2030 Potash operating cost curve, Jansen S1 ~US$100/t FOB cost

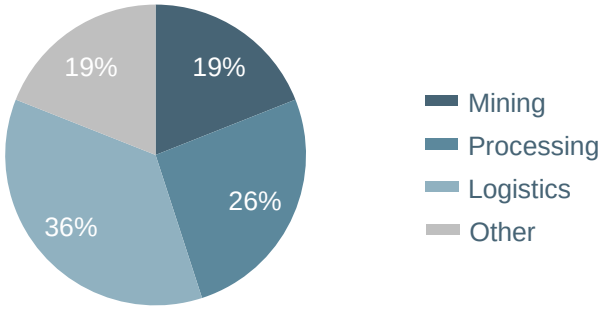
(US$/t real)



FOB operating cost including royalties in 2030; X axis production in % terms.
Source: MineSpans.

Cash cost breakdown of Jansen S1

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



Note: FOB – Free On Board.

Jansen S1 design deep dive

Giles Hellyer
Vice President Operations, Potash
Cheryll Godwin-Abel
Manager Project Delivery, Mining
Mike Elliott
Project Director, Jansen Project

Strong understanding of underlying geology

Work program enabled detailed understanding of resource and optimisation of life of mine plan

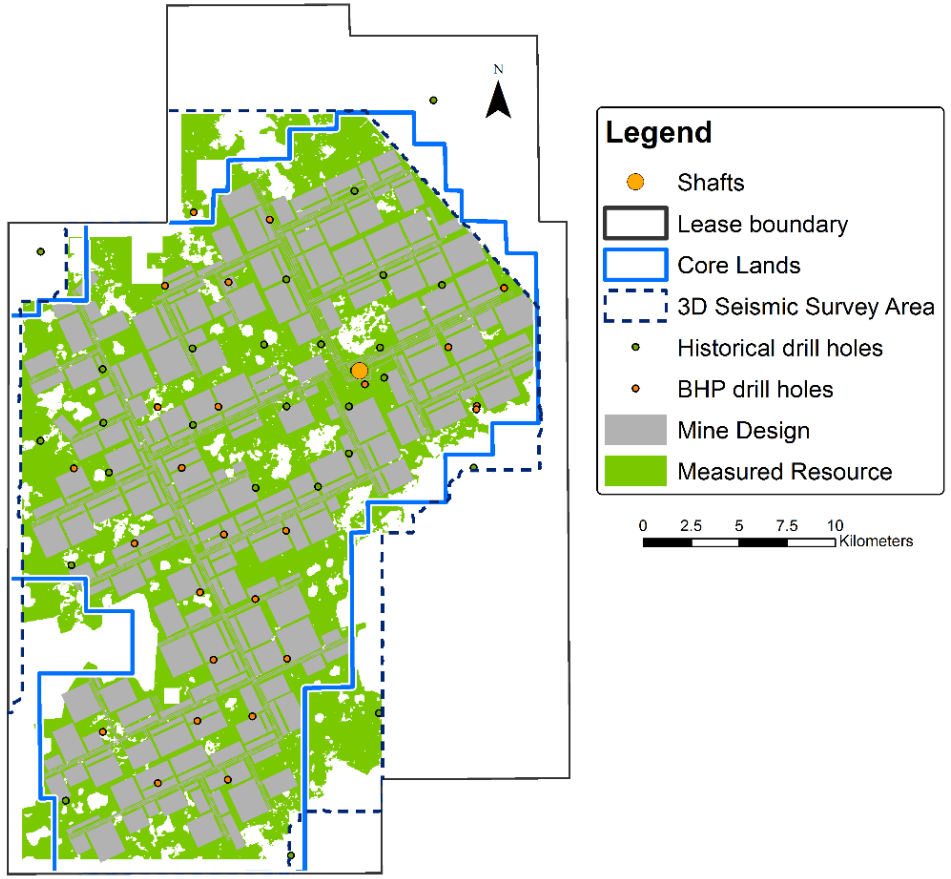
Extensive work to date de-risks project

- Extensive and modern 3D seismic technology, unavailable to new producers decades ago, enables development of integrated resource model
- The Jansen advantage:
  - Hazardous geological features identified and avoided across mine plan area, significantly reducing water ingress risk
  - Detailed understanding of resource informs the full life-of-mine plan, optimising value
- Given the constraints of legacy mine workings, established mines are unable to replicate this advantage to the same extent as Jansen

Large resource base[45] supports optionality

- 6,510 Mt of Total Mineral Resources at a grade of 25.6% K_2O
- 1,070 Mt of Total Ore Reserves at a grade of 24.9% K_2O

3D seismic area and measured resource at Jansen



Source: BHP

Advanced mining technology to be utilised

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

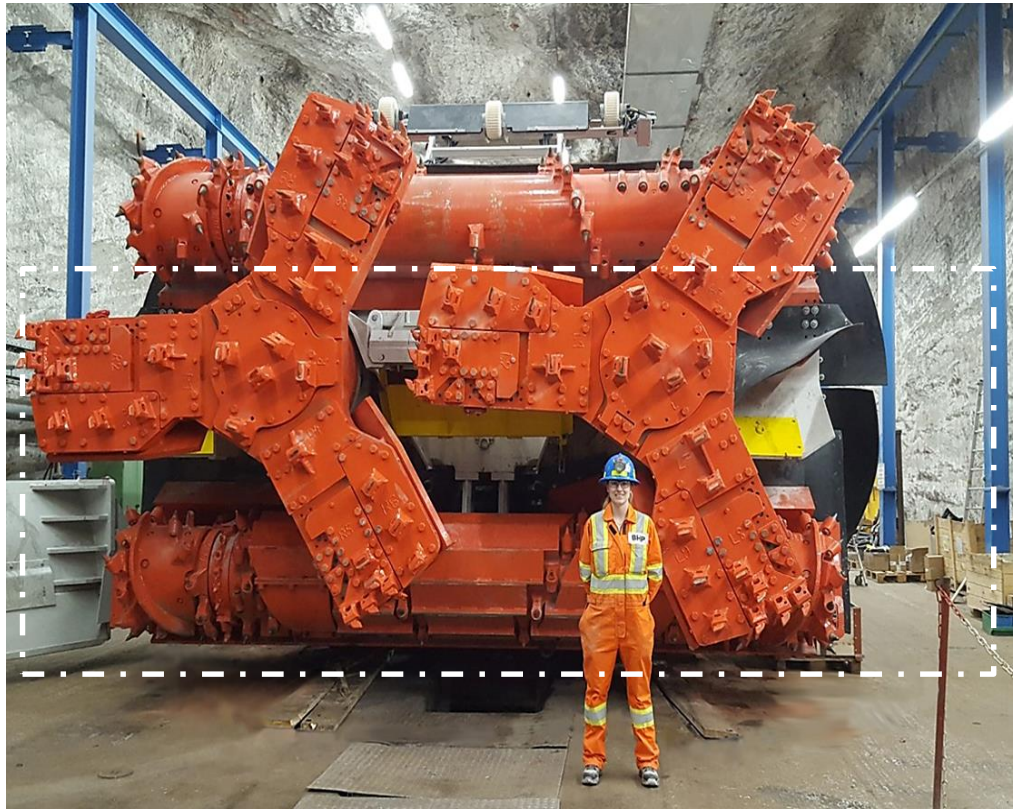
Full-scale, extended underground trial lowers risk

- BHP has spent multiple years extensively trialling our mining system prototype in a salt mine in Heilbronn, Germany

Designed with sustainability in mind

- More than 80% of underground and support fleet by consumption will use electrical energy sources, instead of diesel

Photo of Jansen borer at mining trial



Dotted line indicates typical conventional borer height

Shaft capacity unlocks optionality

Scale and latest technology deliver an advantage

Shafts set for completion in 2022

- Shaft construction well progressed 93%[46] complete at time of sanction de-risking the path to Jansen S1 production
- Fully waterproof shaft liner for longer life, lower operating cost, and higher hoist run-time
- Jansen has a 100% composite hydrostatic liner unlike other assets in the basin

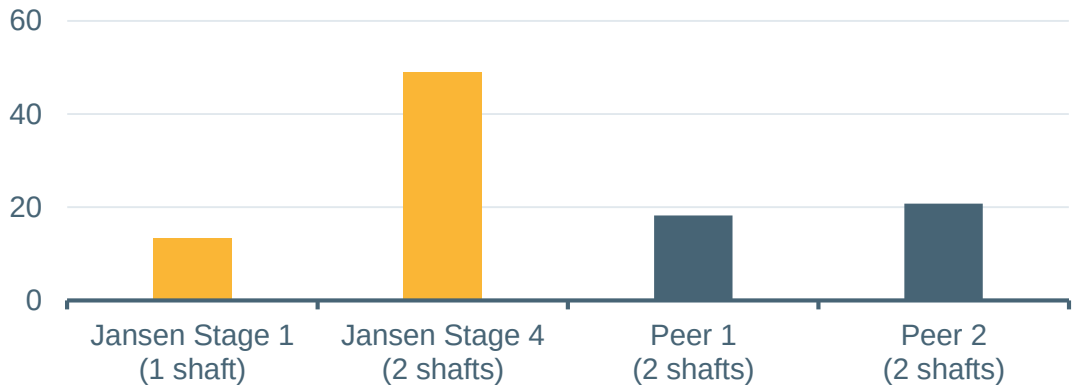
Shaft diameter is 20% to 50% larger than competitors'

- 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

Shaft liner installation

Hoisted ore higher than peers

(Ore Mtpa)



Modern, efficient processing plant design

Optimised for increased recovery and plant utilisation

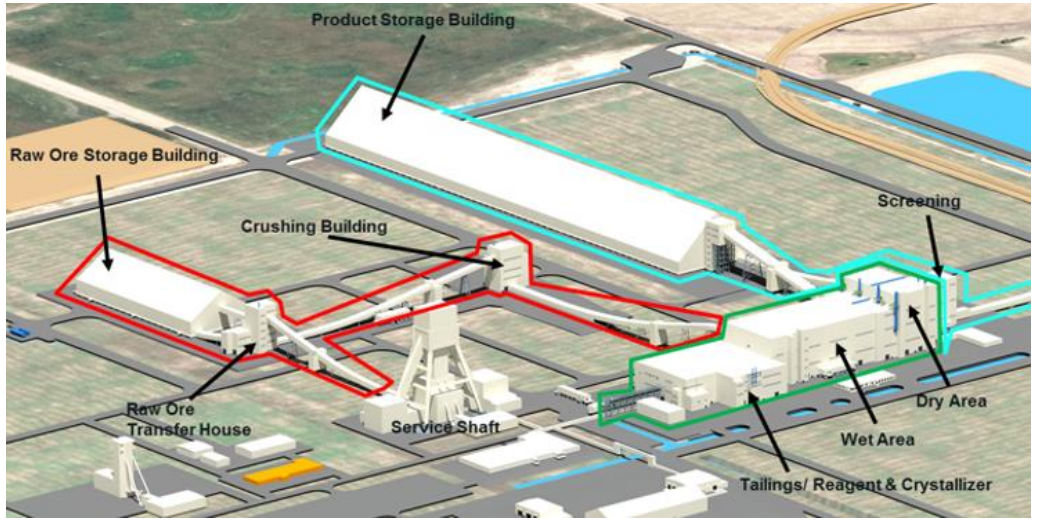
Leading recovery rates and potential operating hours

- ~92% recovery rate enabled by separate fine and coarse flotation with on-stream analysis and crystallization which recovers fine potash from waste streams
- 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
- Dual production lines and larger raw ore and storage than competitors to enable highest plant run time in the province

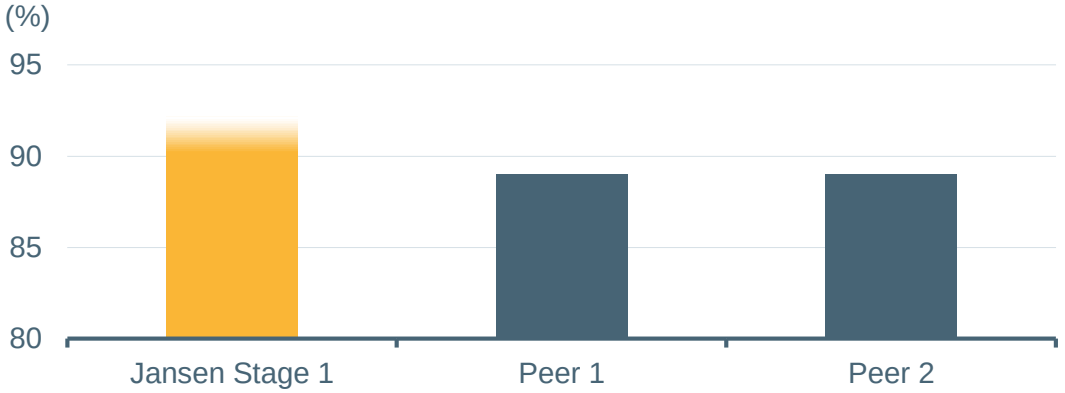
Designed with sustainability in mind

- Best in the basin:
  - Jansen expected to emit ~50% less CO_2e per tonne of product[47] vs. average performer in Saskatchewan potash mines
  - Jansen's water usage is ~60% less m^3 per tonne of product[48] vs. average performer in Saskatchewan potash mines

Processing sub-areas render



Process plant recovery higher than peers



Outbound logistics support Jansen S1 and beyond

Agreements and investment set to deliver efficient path to market for Jansen's product

Rail

- Continuous high-speed loading and unloading systems to maximise efficiency and reduce loading and unloading times
- Embedded advantage from Jansen S1 railway spurs linking to both class 1 rail networks in Canada
- BHP to operate with dedicated fleet of rail cars

Port

- Long-term partnership with Westshore Terminals in Delta, BC Canada, ~2,000km from Jansen, to develop dedicated facilities
- Well-established bulk operator in a prime location offering deep water and best-in-class rail access in Port of Vancouver
- Will provide efficient rail unloading, storage and vessel loading as part of a world-class logistics system
- Westshore's transition to Potash will serve Jansen S1 and potential S2 production, with significant expansion potential

Location of Westshore Terminal ~2,000km from Jansen

Artist render of Jansen infrastructure at Westshore terminals

BHP

Project Management

Simon Thomas
Vice President Projects, Potash

BHP has a strong track record of major project delivery

Recent successes include South Flank and Spence Growth Option

Proven project management and potash capability

- Experienced project management and delivery team at Jansen
- More than 25% of team from the potash industry, including strong underground operating experience
- Project Centre of Excellence in Saskatoon provides support to regional projects

Drawing on recent success in project execution

- BHP has recently delivered about US$7 billion of projects on schedule and budget:
  - South Flank, Spence Growth Option, Ruby, Escondida Water Supply Extension
- Transferring team members from these projects to Jansen
- Leveraging lessons learnt from these projects, incorporating this into Jansen S1 planning and execution

South Flank iron ore project in Australia

SGO copper project in Chile

Plans in place to manage potential capex pressures

Budget of US$5.7 billion / C$7.5 bn

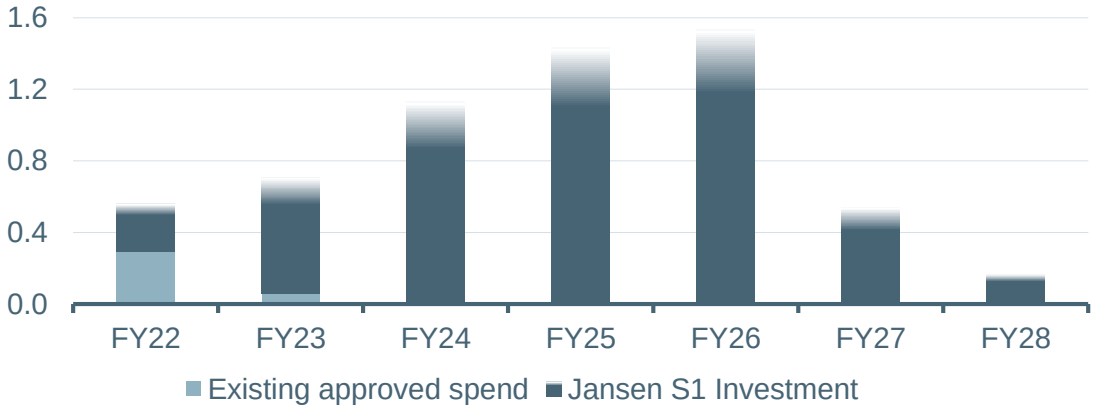
Well scoped capital budget

- ~50% of engineering has been completed, with more than 45% of procurement orders placed, including long lead items like mining system, processing and electrical equipment
- Capex is ~85% Canadian dollars, with built in contingency
- Fixed project capex for port at Westshore
- Exposure to supplied and fabricated steel is only ~US$200m

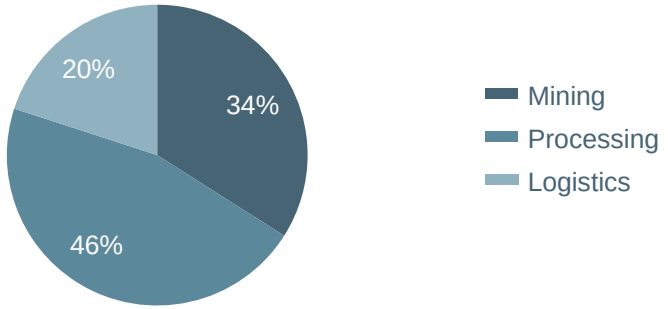
Capital spend back-end weighted

- Near term pre-FY24 spend includes indirect costs, shaft fit-out, mine room development, and purchase of mining equipment
- Spend in later years will be on mill construction, mine equipment installation, port infrastructure and ramp up of operational workforce

Investment spend profile
(US$ billion)

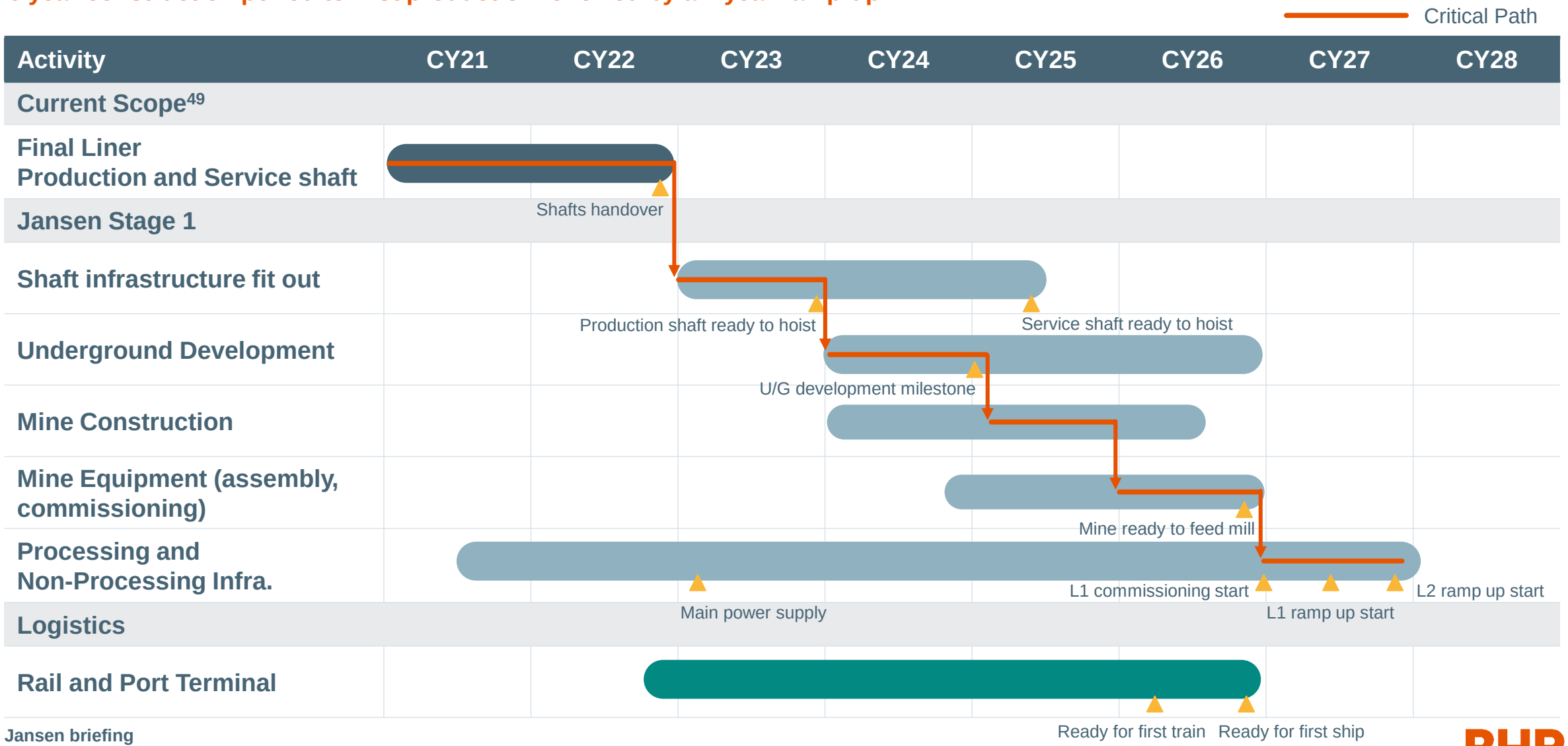


Capital cost breakdown of Jansen S1
(US$5.7 billion, %)



Schedule optimised to a high level of confidence

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



BHP

Social Value

Lindsay Brumwell
Manager Corporate Affairs, Potash

Social Value will be at the core of Jansen's development

Project will make significant contributions to Canada, including Saskatchewan

Capital spend

~85%

of estimated total project spend in Canadian dollars

Economic contribution

~C$1.8 billion

direct and indirect contribution to local GDP up to first year of production[50]

Job creation

~3,500

jobs at peak of Jansen S1 construction, ~600 during production

Diversity and inclusion

20%

Indigenous employees targeted during operation [51]

Local communities

C$35 m

in local community donations over the past six years

Gender balance

37%

females in potash business; aspirational goal for a gender balanced workforce during operation

Agreements with Indigenous peoples

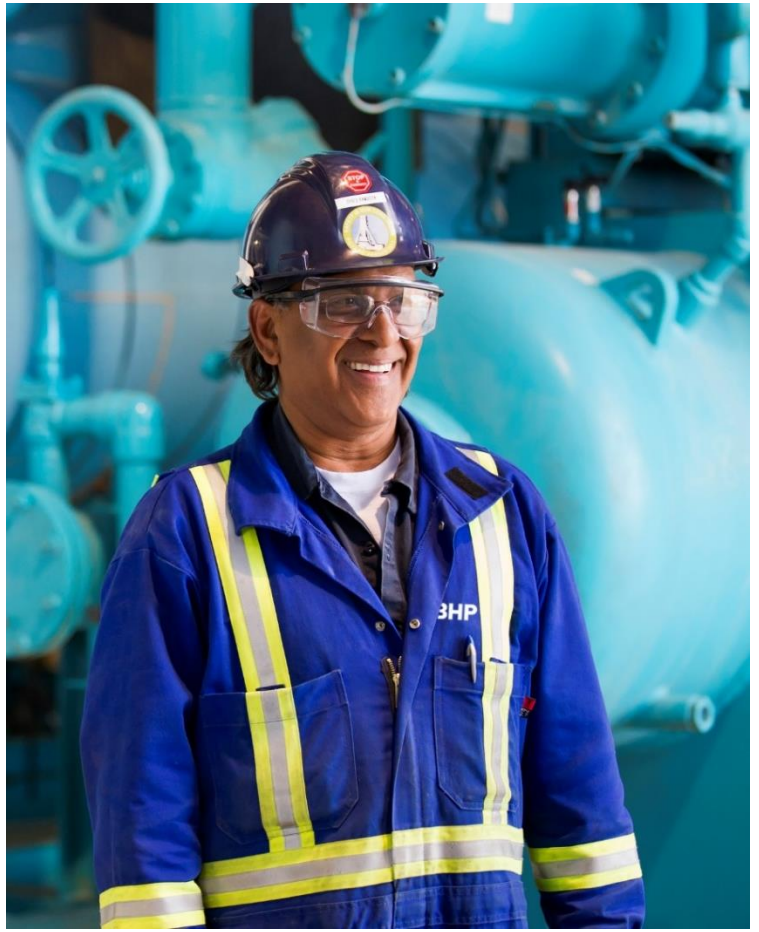
Agreements signed with all 6 First Nations communities near the Jansen project

Engagement

- Unique in the potash industry, opportunities to learn from our First Nation communities on culture and history
- Relationships built over 10+ years with regular engagement through community events and agreement governance meetings

Opportunities

- **Diversity:** Targeting ~20% Indigenous employment [51] and gender balanced workforce for Jansen S1
- **Create:** long-term mutually beneficial opportunities in employment, business and community development
- **Include:** commitments to initiatives on education, training, labour force development and social investment
- **Share:** information important to environmental management practices
- **Assist:** in building First Nations business capacity



BHP

Conclusion

Rag Udd
President Mineral Americas

Jansen is setup for success

Our approach to the project is set to deliver long term value and create a platform for growth in potash

Attractive future facing commodity

- Exposure to global mega trends
- A low emission, biosphere friendly fertiliser
- Attractive fundamentals, supply-driven market, reliable base demand with attractive upside

World class asset

- Increased diversification of commodity, customer base and operating footprint for BHP
- High-margin and 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 [51]
- Aspirational goal for a gender balanced workforce
- Low water footprint and emissions embedded in design


BHP

Footnotes

1. Slide 4: **1**: Aiming to achieve Indigenous workforce participation of 20% by the end of FY27.
2. Slide 5: **2**: Cumulative demand increase of 234% in the next 30 years compared to the last 30 years. Refer to the BHP Climate Change Report 2020 for more information about these climate-related scenarios and their assumptions. Scenarios were developed prior to the impacts of the COVID-19 pandemic, and therefore any possible effects of the pandemic were not considered in the modelling.
3. Slide 5: **3**: 2030 revenue based on consensus pricing, potash is the average of CRU and Argus prices
4. Slide 5 **4**: Source: CRU 2020 imports
5. Slide 5: **5**: Based on number of operations in 2030, Jansen treated as an operation given Stage one sanction
6. Slide 6: **6**:Expected Jansen S1 EBITDA margins was conducted on the average of CRU and Argus prices.
7. Slide 6: **7**: Expected Jansen S1 IRR of investment decision across ~100 year mine life analysis was conducted based on the range of the average CRU and Argus prices in 2027–2037. Jansen S1 IRR is post tax and nominal, and excludes remaining funded investment of ~US$0.35 billion for completion of the shafts and installation of essential service infrastructure and utilities.
8. Slide 6: **8**: Scope 1+2 emissions of ~60kg CO2e/t.
    a) Scope 1+2 emissions for flotation-based MOP ~50-80 kg CO2e/t, other production routes are 100-500kg. High nutrient concentration (60% K2O) maximises efficiency in transportation and spreading.
    b) From BHP research conducted so far, nitrogen-based fertilisers rather than potash appear to have a larger downstream emissions impact. However, trying to estimate the GHG contribution impact of fertiliser on soils and crops is very complicated. We continue to develop and improve our knowledge in this area.
1. Slide 6: **9**: Scope 3 impact relates only to emissions associated with downstream processing and use, not other considerations such as transportation.
2. Slide 8 **10**: World's largest statement is on a production basis
3. Slide 8: **11** Production target for Stage 1 is based on reported Ore Reserves. Potential incremental stages 2-4 are based on Measured Resources. Mineral Resources and Ore Reserves are included in the news release published on 17th August 2021, available to view at www.bhp.com. The execution of future stages would be subject to our review of supply and demand fundamentals and successful competition for capital under our Capital Allocation Framework.
4. Slide 8: **12** Expected Capital Intensity Jansen S2-4, US$/product tonne, Real 1 Jul 2020
5. Slide 8: **13**: Expected Capital Intensity Jansen S1, US$/product tonne, Real 1 Jul 2020
6. Slide 8: **14**: Expected Jansen S2-S4 IRR of investment decision across ~100 year mine life analysis was conducted on consensus prices. Jansen S2-S4 IRR is post tax and nominal.
7. Slide 8: **15**: Expected Jansen S1 IRR of investment decision across ~100 year mine life analysis was conducted based on the range of the average CRU and Argus prices in 2027–2037. Jansen S1 IRR is post tax and nominal, and excludes remaining funded investment of ~US$0.35 billion for completion of the shafts and installation of essential service infrastructure and utilities.
8. Slide 10: **16** Based on BHP's 1.5°C Scenario. Refer to the BHP Climate Change Report 2020 for information about this scenario and its assumptions.
9. Slide 12: **17**: Our portfolio is tested across a range of futures. Refer to the BHP Climate Change Report 2020 for more information about these climate-related scenarios and their assumptions. Scenarios were developed prior to the impacts of the COVID-19 pandemic, and therefore any possible effects of the pandemic were not considered in the modelling.
10. Slide 12: **18**: Nickel and copper demand references primary metal.
11. Slide 12: **19**: Iron ore and metallurgical coal demand based on Contestable Market (Global seaborne market plus Chinese domestic demand).
12. Slide 13: **20**: Historical data: CRU. Nutrien range of 2.0% to 2.5% in the 2020s as disclosed in 2021 Q1 earnings call. Achievable production is BHP analysis based on multiple sources. Note that the chart shows linear interpolations that result in the same 2020-2035 aggregate tonnage increment as the stated CAGRs.
13. Slide 13: **21**: Specialist average based on CRU, Argus, Fertecon (IHS Markit). 2020-2035 CAGR calculated relative to trend level in 2020 (69.5 Mt) not to actual level estimated by CRU (71.6 Mt).
14. Slide 15: **22**, **23**: Macro assumptions include items such as FX rates, energy costs, carbon and labour. Shaded boxes are the approximate price range associated with the operating conditions described therein.
15. Slide 17: **24**: Data source IFA
16. Slide 17: **25**. Estimates for 2020 on a K2O basis, MOP derivatives include 1.7Mt of SOP (secondary production) with the balance NOP. Other includes 1.9Mt primary SOP, 0.3Mt KMS, and 0.1Mt of Polyhalite (or ~700kt of Polyhalite in product tonnes). Data source CRU, Fertecon, BHP analysis. Note "standard" is ~0.5-1mm and "fine" ~0.2-0.5mm is typically interchangeable; Agricultural MOP is usually red, but may be white, governed more by production methods than demand, although some have white preference, notably Chinese NPK manufacturers.
17. Slide 17: **26**. Varies for different fertilisers.
18. Slide 17: **27**. Nitrogen fertiliser use releases N_2O directly via leaching/volatilisation and indirectly through microbial denitrification. This contributes 10% of CO_2-equivalent emissions from the global food system. Crippa, M., Solazzo, E., Guizzardi, D. et al. *Food systems are responsible for a third of global anthropogenic GHG emissions*. Nat Food 2, 198–209 (2021). https://doi.org/10.1038/s43016-021-00225-9.
19. Slide 17: **28** Some common phosphate fertilisers also contain nitrogen, which generates N_2O upon use.
20. Slide 17: **29** Land-use and land-use change (LULUC), mainly in the form of deforestation, contributes 32% of CO_2-equivalent emissions from the global food system and 11% of all anthropogenic emissions. Crippa, M., Solazzo, E., Guizzardi, D. et al. *Food systems are responsible for a third of global anthropogenic GHG emissions*. Nat Food 2, 198–209 (2021). https://doi.org/10.1038/s43016-021-00225-9.
21. Slide 18: **30**. Data source company reports, BHP analysis
22. Slide 18: **31** Data source CRU, BHP analysis. "m" abbreviation for month, typical terms only, actual terms can vary depending on circumstance, by example Brazil can selectively be fixed on longer term contracts or the US has longer terms in fill season
23. Slide 18: **32**: In general, although in individual regions some complexity can exist as a result of permit availability, government policies, local practices etc

Footnotes cont

1. Slide 21: **33**: Majority of agreements are subject to non-disclose agreements. Agreements are typically with major buyers across South/Central America, South/South East Asia/China, and North America. By exception we have disclosed 2 agreements in China at the request of the counterparty (https://www.bhp.com/media-and-insights/news-releases/2019/11/bhp-grows-presence-at-2nd-china-international-import-expo/).
2. Slide 23: **34:** Based on a Reserve life of 94 years as reported in the 17 August 2021 news release, available to view on www.bhp.com, with further optionality from Jansen's 5,230 Mt Measured Resource base
3. Slide 23: **35:** For further information please refer to Mineral Resources and Ore Reserves, as reported in the 17 August 2021 news release, available to view on www.bhp.com and reported in 100 per cent terms. Competent Persons are B Nemeth (MAusIMM) and O Turkekul (APEGS) for Mineral Resources, and J Sondergaard (MAusIMM) for Ore Reserves.
4. Slide 24: **36:** Figures on this slide refers to Jansen S1; Jansen S1 sustaining capex +/-20% on any given year.
5. Slide 24: **37** Jansen S1 production begins in CY27. Jansen S1 forecast to be first quartile when it reaches full production.
6. Slide 24: **38** Canada excludes Jansen.
7. Slide 25: **39**: Jansen to emit ~0.025 tonne CO2e per tonne of product, about half the average emissions of Saskatchewan potash mines.
8. Slide 25: **40** Jansen's water usage to be 0.4 m3 for Stage 1 vs 1.7 m3 per tonne of product for comparable potash processing facilities
9. Slide 26: **41** Production numbers for peers reflect actual 2020 MOP production.
10. Slide 26: **42**: 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.
11. Slide 26: **43:** Table reflects Jansen's proposed operation versus current operations at incumbent producers. Assumes full development of Jansen (Stages 1-4); Jansen capacity is equal to production.
12. Slide 27: **44**: Project scope includes finishing the excavation and lining of the production and service shafts, and continuing the installation of essential surface infrastructure and utilities
13. Slide 30: **45**: Mineral Resources and Ore Reserves are as reported in the 17 August 2021 news release, available to view on www.bhp.com and are reported in 100 per cent terms. Competent Persons are B Nemeth (MAusIMM) and O Turkekul (APEGS) for Mineral Resources, and J Sondergaard (MAusIMM) for Ore Reserves.
14. Slide 32: **46**: 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 33: **47:** Jansen's water usage is 5% less m3 per tonne of product than the current best performer amongst Saskatchewan potash mines. Jansen's water usage to be 0.4 m3 for Stage 1 vs 1.7 m3 per tonne of product for comparable potash processing facilities
16. Slide 33**: 48:** Jansen to emit ~0.025 tonne CO2e per tonne of product, about half the average emissions of Saskatchewan potash mines. Jansen will emit 10% less CO2e per tonne of product vs current best performer among Saskatchewan potash mines
17. Slide 38: **49** Project scope includes finishing the excavation and lining of the production and service shafts, and continuing the installation of essential surface infrastructure and utilities
18. Slide 40: **50** Based on data provided by BHP and compiled by PwC
19. Slides 40, 41: 43: **51:** Aiming to achieve Indigenous workforce participation of 20% by the end of FY27.

Jansen flow sheet

Efficient mining system and advanced process control

Capacity of 1,750 tph

Hoisting

Mining

Four mining machines needed vs 10-14 of peers for equivalent throughput; 1,216 tph; uptime of 35%

Mine Ore

Throughput of 1,500 tph

Large raw ore buffer; industry leading utilisation

Raw ore storage

Raw ore handling and crushing

Scrubbing and de-sliming

Flotation circuit

Tails management

Dry tailings: no damming or any large risks associated with potash tailings

Crystallisation plant

Recovers fine potash that would traditionally be lost to tailings

Single Bottleneck – dryers: have 20% additional capacity than needed

De-watering and drying

Sizing

Standard product

Compaction

Granular product

Standard product

Granular product

Product storage and railcar loading

Loaded railcar to domestic distribution

Loaded railcar to port

Domestic market

Domestic rail unloading

Port terminal

Port rail unloading

Port storage

Ship loader

Offshore market

Empty rail cars back to 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_2O	% Insol.	% MgO	Mt	% K_2O	%I nsol.	% MgO	Mt	% K_2O	% Insol.	% MgO	Mt	% K_2O	% 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_2O	% Insol.	% MgO	Mt	% K_2O	%I nsol.	% MgO	Mt	% K_2O	% 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 t o t he 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 %K2O grade is equivalent to 40.5 %KCl content using the mineralogical conversion factor of
- MgO % is used as a measure of carnallite ($KCl.MgCl_2.6H_2O$) 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 are as reported in the 17 August 2021 news release, available to view on www.bhp.com and are reported in 100 per cent terms. Competent Persons are B Nemeth (MAusIMM) and O Turkekul (APEGS) for Mineral Resources, and J Sondergaard (MAusIMM) for Ore Reserves.

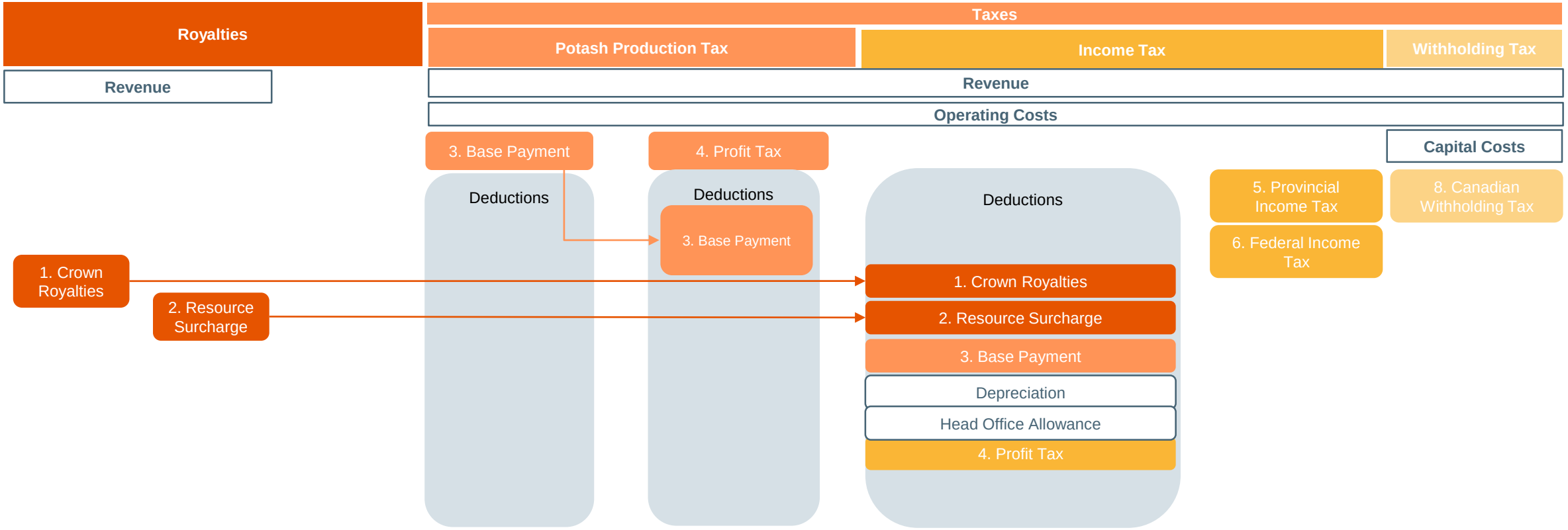
Jansen Financial Modelling

Operator and ownership	BHP, 100% interest
Capex	US$5.7 bn, C$7.5 bn Capex spend over six years - peak spend in FY25 and FY26
Sustaining capital	~US$15/t (real) long term average; +/- 20% in any given year
First production / Project delivery	~6 years construction timeframe ~2 years ramp up from first production
Volumes	4.35 Mtpa (Potassium chloride, KCL)
Mine life / Reserves and resources	~100 years 1.1 bt reserve 6.5 bt resource
Unit costs	~US$100/t FOB Vancouver • Mining: $19/t • Processing: $26/t • Port & Rail Freight: $36/t • Other: $19/t
Product Grade	Pink standard and pink granular MOP with a guaranteed minimum 60% K_2O
Average Recovery	~92%

Royalty	3% crown royalty calculation = (K_20 tonnes produced) x (average realised price) x (3% royalty rate) 3% resource Surcharge = (Gross revenue + transportation charged - transportation costs) x 3%
Potash Production Tax	A base payment levied at a rate of 35% on the producer's annual resource profits, subject to minimum payment of CAD$11.00 and a maximum of CAD$12.33 per K_2O tonne sold. New producers may qualify for a base payment holiday for the first 10 years of production. A profit tax imposed on the producer's gross annual profit tax determined by rates, which increase with profits per tonne sold: 15% of the profit per tonne below CAD $71.36 and 35% of the profit per tonne above CAD $71.36 (tax brackets indexed for inflation). Profit tax is assessed on a max of 35% of total tonnes sold, but producers may claim a base payment credit with respect to amount of tonnes that are subject to both the base payment and the profit tax. No tax holidays available.
Federal and provincial corporate tax	Combined top rate 27% (carried forward losses from pre-production years can be utilised to decrease future taxable profits).
Withholding tax	5%

Note: KCL is used interchangeably with MOP, fertiliser grade MOP is 95% KCL. The conversion from pure KCL to K_20 is 0.631.

Tax system for potash industry in Canada



Tax and royalty items	1. Crown Royalties	2. Resource Surcharge	3. Base Payment	4. Profit Tax (net)	5. Provincial Income Tax	6. Federal Income Tax	7. Canadian Withholding Tax
Basis	Revenue	Revenue	Profit	Profit	Profit	Profit	Dividends
Rate	3%	3%	CA$11-12	15- 35%	12%	15%	5%
Payee	Provincial	Provincial	Provincial	Provincial	Provincial	Federal	Federal

Pricing realisation calculation

Prices are influenced by grade and volume, but there are also (fluid) variations between prices in different regions

Selling price
Brazil CFR
China CFR
US FOB w/house

- Most sales are made on a delivered basis
- Sales may be spot or contract
- Transacted prices are monitored by specialist price-discovery services
- Prices vary by product (e.g. standard/granular)

–

Discounts

- Sellers may offer bilateral discounts, conditional or volume based rebates, and/or extended credit

–

Seaborne freight

- For CFR sales, sellers arrange ocean freight either using spot or long-term charter

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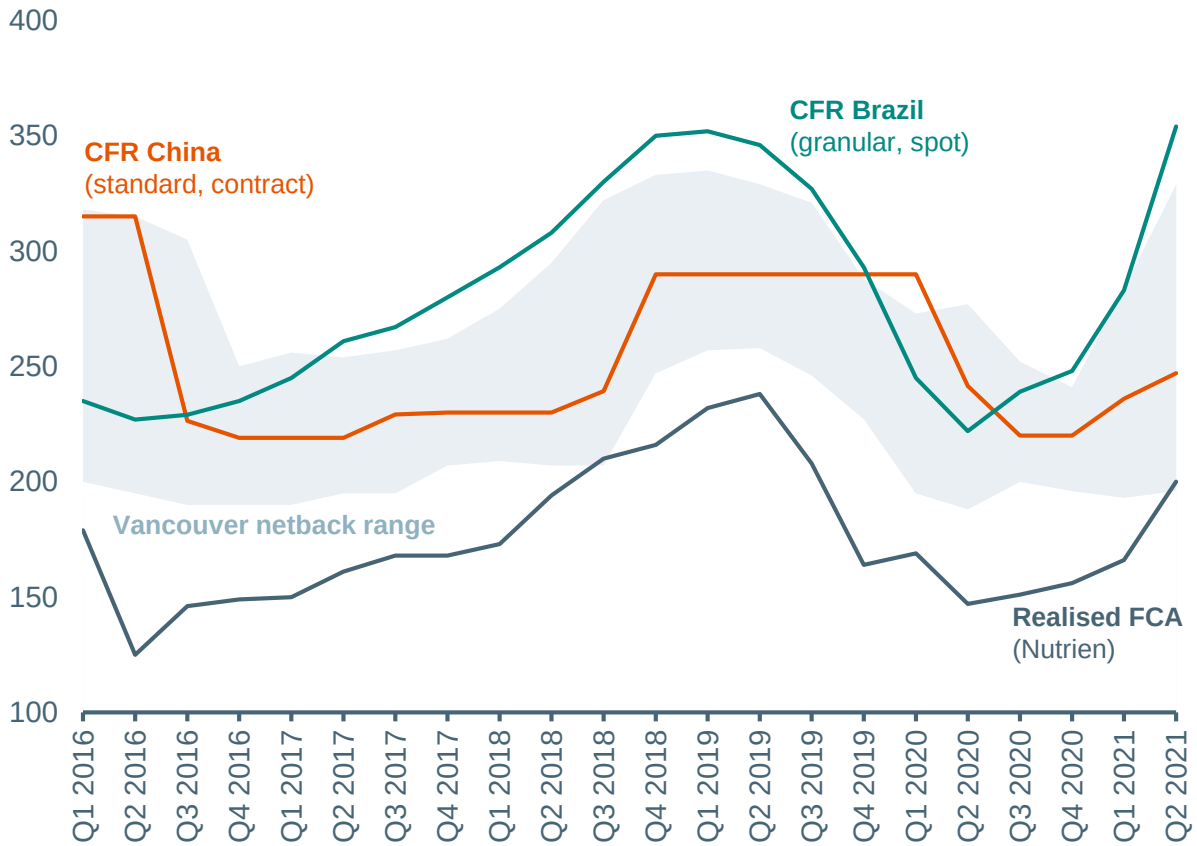
Port costs and inland freight = **Realised price FOB mine**

US$/t MOP (quarterly average)
(nominal)



There is no single "potash price": for example, this chart shows a 5-yr history of Nutrien's realised price (FCA, offshore sales only) against benchmarks reported by CRU *Fertilizer Week*

Data: CRU *Fertilizer Week*; Nutrien.

Potash demand outlook to 2030 by region

Soil depletion a global phenomenon, underscoring our belief that IoU is likely to rise across multiple regions

Additional tonnes 2020-2030

NORTH AMERICA	
Historical demand growth[1]	0.2%
BHP forecast growth[2]	1-3%
External forecast growth[3]	1.7%
Soil nutrient imbalance[4]	Poor, deteriorating
Potash contribution to K uptake[5]	30-35%, recently improving

EUROPE & CIS	
Historical demand growth[1]	0.2%
BHP forecast growth[2]	1-3%
External forecast growth[3]	1.1%
Soil nutrient imbalance[4]	Poor
Potash contribution to K uptake[5]	20-25%, stable

ASIA & OCEANIA	
Historical demand growth[1]	4.3%
BHP forecast growth[2]	1-4%
External forecast growth[3]	2.0%
Soil nutrient imbalance[4]	Poor, deteriorating
Potash contribution to K uptake[5]	30-35%, improving

CENTRAL & SOUTH AMERICA	
Historical demand growth[1]	4.4%
BHP forecast growth[2]	2-4%
External forecast growth[3]	2.9%
Soil nutrient imbalance[4]	Poor, deteriorating
Potash contribution to K uptake[5]	35-40%, stable

AFRICA	
Historical demand growth[1]	6.1%
BHP forecast growth[2]	5-10%
External forecast growth[3]	2.9%
Soil nutrient imbalance[4]	Poor, deteriorating
Potash contribution to K uptake[5]	~5%, improving

WORLD	
Historical demand growth[1]	**2.7%**
BHP forecast growth[2]	**1-3%**
External forecast growth[3]	**2.0%**

1. Average growth per annum of MOP shipments 2000-01 to 2019-20 (CRU).
2. Forecast average growth per annum of MOP shipments 2019-20 to 2030 (BHP range).
3. Forecast average growth per annum of MOP shipments 2019-20 to 2030 (Argus; CRU; IHS).
4. Status of the World's Soil Resources (FAO and ITPS, 2015).
5. BHP analysis based on multiple sources.

Potash is a low emission, biosphere friendly fertiliser

MOP is a critical nutrient with a modest GHG and broader environmental footprint

GHG emissions intensities inform our investment decisions:

Scope 1+2 ► / ▼Scope 3[1]	Low <100 kg CO_2e/t	Medium <1,000 kg CO_2e/t	High >1,000 kg CO_2e/t
Low <100 kg CO_2e/t	potash[2]		
Medium		phosphate[3]	
High >1,000 kg CO_2e/t			nitrogen[4]

Not all fertilisers have the same environmental footprint:

- Potash **doesn't** have high emissions in production or distribution
- Potash **doesn't** release CO_2 or N_2O
- Potash **doesn't** pollute waterways

1. Scope 3 impact relates only to emissions associated with downstream processing and use, not other considerations such as transportation.
2. Based on MOP produced by flotation and without downstream processing.
3. Based on ammonium phosphates (DAP/MAP).
4. Based on urea.

Note: a) Scope 1+2 emissions for flotation-based MOP 50-80 kg CO2e/t, other production routes are 100-500kg. High nutrient concentration (60% K2O) maximises efficiency in transportation and spreading.
b) From BHP research conducted so far, nitrogen-based fertilisers rather than potash appear to have a larger downstream emissions impact. However, trying to estimate the GHG contribution impact of fertiliser on soils and crops is very complicated. We continue to develop and improve our knowledge in this area.

5. Crippa, M., Solazzo, E., Guizzardi, D. et al. Food systems are responsible for a third of global anthropogenic GHG emissions. Nat Food 2, 198–209 (2021). https://doi.org/10.1038/s43016-021-00225-9