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NORTHERN STAR
RESOURCES LIMITED

An Australian Gold Miner, For Global Investors

Gold Forum Americas 2020



Resources & Reserves and Forward Looking Statements



Mineral Resources and Ore Reserves

The Mineral Resources, Ore Reserves and exploration results information reported in accordance with the 2012 edition of the Joint Ore Reserves Committee's Australasian Code for Reporting of Mineral Resources and Ore Reserves ("JORC Code") in this announcement for all the Company's projects (excluding KCGM Operation) is extracted from the report entitled "Resources and Reserves, Production and Cost Guidance Update (ex-KCGM)" dated 13 August 2020, available at www.nsr ltd.com and www.asx.com. For the purposes of ASX Listing Rule 5.23, Northern Star confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. Northern Star confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

The Mineral Resources, Ore Reserves and exploration results information reported in accordance with the 2012 edition of the Joint Ore Reserves Committee's Australasian Code for Reporting of Mineral Resources and Ore Reserves ("JORC Code") in this announcement for the KCGM Operation is extracted from the report entitled "KCGM Reserves, Resources and Guidance Update" dated 18 August 2020, available at www.nsr ltd.com and www.asx.com. For the purposes of ASX Listing Rule 5.23, Northern Star confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. Northern Star confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Forward Looking Statements

Northern Star Resources Limited has prepared this announcement based on information available to it. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement. To the maximum extent permitted by law, none of Northern Star Resources Limited, its directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this announcement or its contents or otherwise arising in connection with it.

This announcement is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any security, and neither this announcement nor anything in it shall form the basis of any contract or commitment whatsoever. This announcement may contain forward looking statements that are subject to risk factors associated with gold exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, Resource and Reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

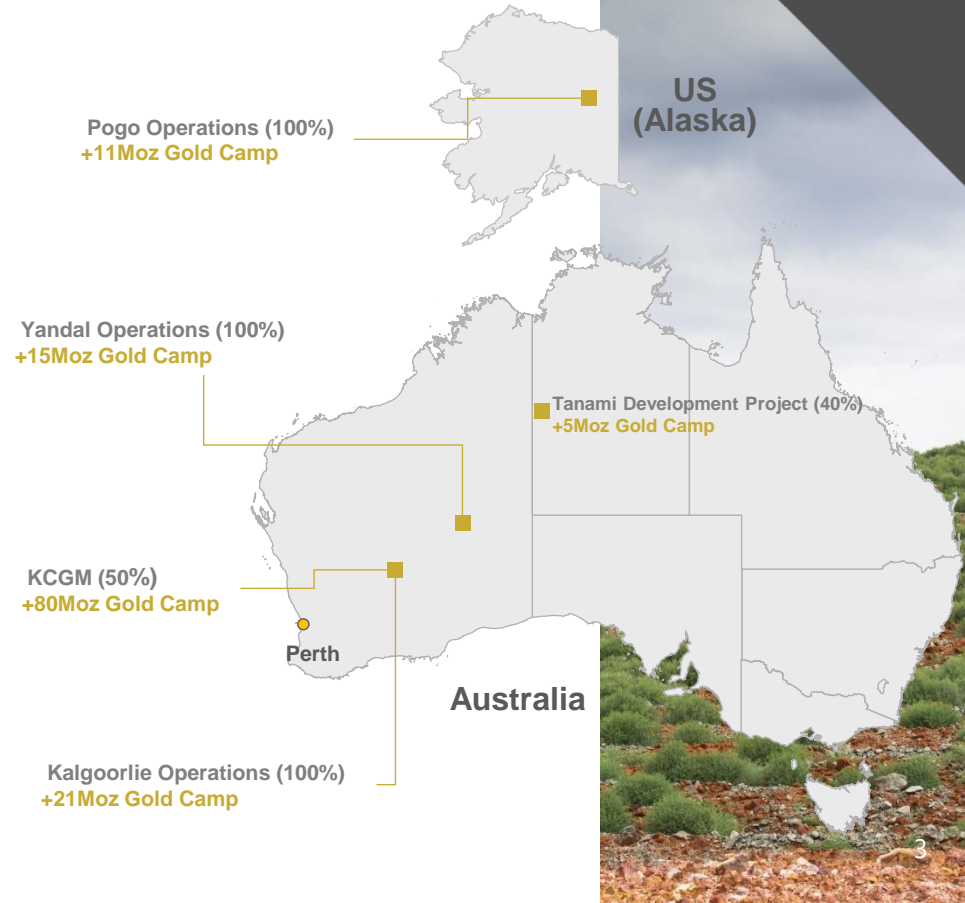
* All currency conversions in this document were converted at a spot conversion rate of AUD/USD of \$0.70.

Authorised for release to the ASX by Bill Beament, Executive Chair.

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NST Business: Tier-1 Assets in Tier-1 Locations

- ASX listed; Top 15 Global Gold Producer
- NST manages a simplified business; with 4 large scale Tier-1 assets in Tier-1 locations
- Market cap is US\$7.7B with a robust balance sheet; net cash and equivalents of US\$50M
- Strong organic growth outlook over the next 3 years, annual production increasing 40% to 1.25Mozpa and costs falling by 10%
- FY20, record year financially for Company with underlying free cashflow ~US\$300M
- Acquired 50% of ~500kozpa KCGM Operation in January 2020 for US\$775M
- FY21 group guidance of 940koz-1,060koz at an AISC of US\$1,050-US\$1,140/oz; significant leverage to spot gold ~US\$2,000/oz
- The next 3 years delivers significant growth in production, cashflow and dividends; with one of the industry's lowest capital intensities



Corporate Overview

Key Metrics (ASX:NST)

Market Capitalisation	US\$7.7B (A\$11B)	Hedging	526koz @ A\$2,085/oz
Cash and Bullion¹	US\$540M	Safety - LTIFR	0.5 (vs Industry Average 2.1)
Debt¹	US\$490M	Mineral Resources²	31.8Moz @ 2.6gpt
Major Index Inclusion	ASX100, GDX/GDXJ, MSCI	Ore Reserves²	10.8Moz @ 1.9gpt

Highly Experienced Board and Executive

		Place Of Residence
Bill Beament	Executive Chair	Western Australia
John Fitzgerald	Non-Executive Director (Lead Independent)	Western Australia
Peter O'Connor	Non-Executive Director	50% UK / 50% WA
Shirley In't Veld	Non-Executive Director	Western Australia
Mary Hackett	Non-Executive Director	Western Australia
Nick Cernotta	Non-Executive Director	Western Australia

Key Executive

Stuart Tonkin	Chief Executive Officer
Ryan Gurner	Chief Financial Officer
Luke Creagh	Chief Operating Officer
Michael Mulroney	Chief Geological Officer
Hilary Macdonald	General Counsel and Company Secretary

1. Cash and Bullion as at 30 June 2020 2. Mineral Resources and Ore Reserves as at 30 June 2020



Integrated Sustainability - Core business alignment

Our Sustainability Vision

“Delivering responsible environmental and social business practice that lead to both the creation of strong economic returns for our Shareholders, and shared value for our Stakeholders.”

Our Sustainability Framework Ecosystem



Progressing to Stage Two of our TCFD Recommendation adoption in 2020

SUSTAINABLE DEVELOPMENT GOALS



Aligning business actions with global sustainable development needs as defined by the United Nations



Strengthening our ESG disclosures by adopting the SASB materiality framework for CY2020 reporting

Stakeholder ESG Engagement

- Annual, board-level ESG investor roadshow and broader stakeholder engagement provides invaluable feedback on priority ESG areas
- Allows us to meaningfully shape our sustainability strategy and make informed decisions on how we evolve the business within this critical area

CY2020 Sustainability Highlights

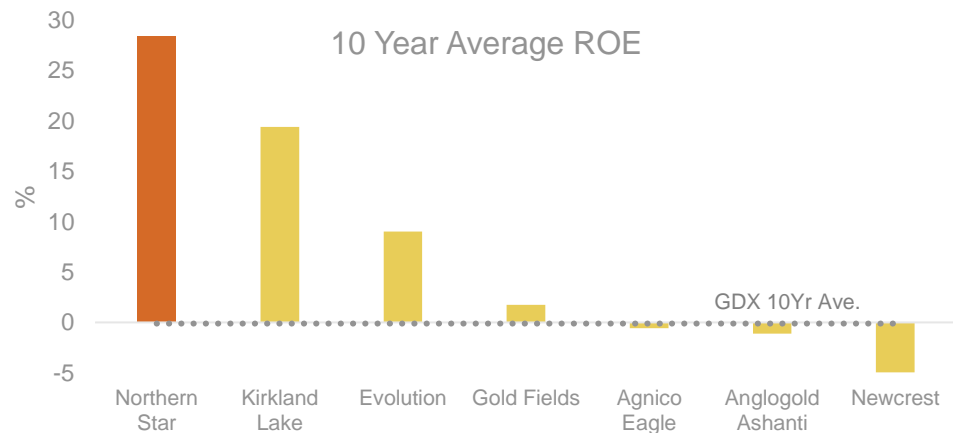
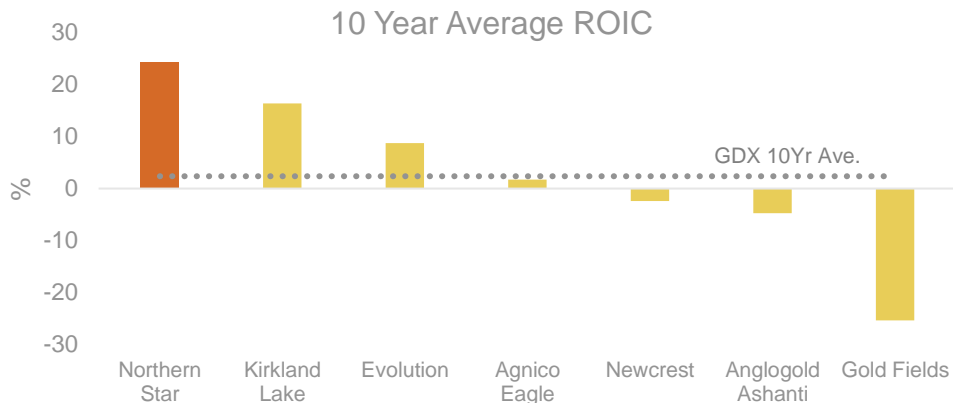
- **Zero significant environmental, heritage or regulator infringements** since acquisition of current portfolio of operating assets
- **Net freshwater production intensity** per ounce reduced by 27%
- **Energy consumption** reduced by 10% per ounce
- Stage one **TCFD climate change** risks assessments completed
- All while successfully continuing **value accretive growth**



Thinking gold? Think proven sector leading returns

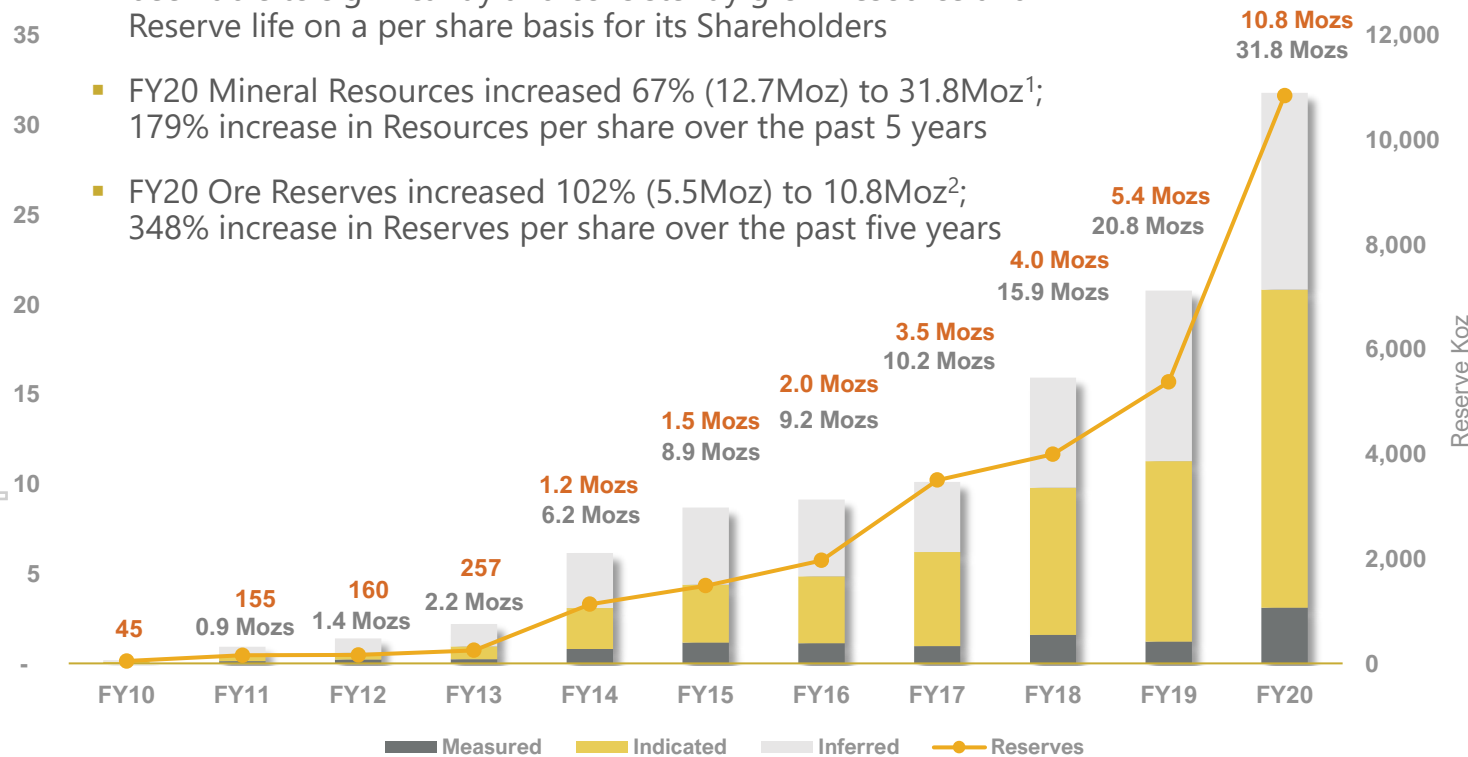
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- NST operates by the core focus of being a business first and a mining company second
- NST 10-Year average ROIC +24%, ROE +28%, both strongly outperforming the GDX and our peers
- ROIC/ROE sector leader, despite multiple acquisitions (highly disciplined M&A)
- Best in class Total Shareholder Return over the past decade in-excess of +11,000%



Consistent Resource and Reserve Growth

- Through value accretive organic and inorganic growth NST has been able to significantly and consistently grow Resource and Reserve life on a per share basis for its Shareholders
- FY20 Mineral Resources increased 67% (12.7Moz) to 31.8Moz¹; 179% increase in Resources per share over the past 5 years
- FY20 Ore Reserves increased 102% (5.5Moz) to 10.8Moz²; 348% increase in Reserves per share over the past five years



1. After depletion and acquisitions of Bronzewing and KCGM Projects. 2. After depletion and acquisitions of Bronzewing and KCGM Projects.



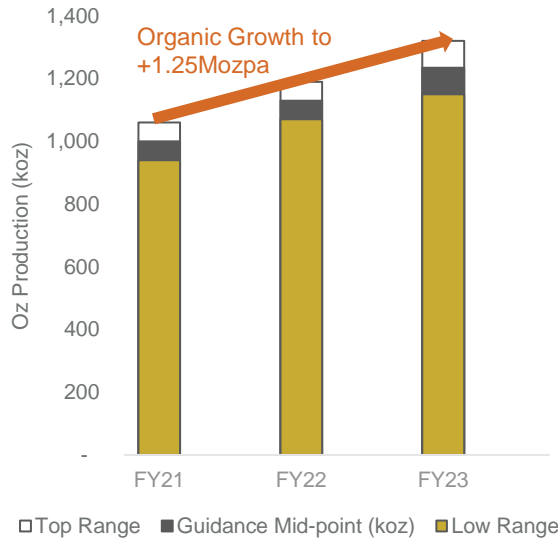
Low capital intensity production growth

- Annual production set to increase by 40% to 1.25Moz and costs to decrease by 10% over the next 3 years
- This significant production growth is achieved with one of the lowest capital intensity's in the industry, with capex spend estimated at US\$139M in FY21 and US\$210M in FY22, all funded from cashflow
- Strong track record of delivering growth with a 76% increase in gold production over the past 4 years (2016-2020)

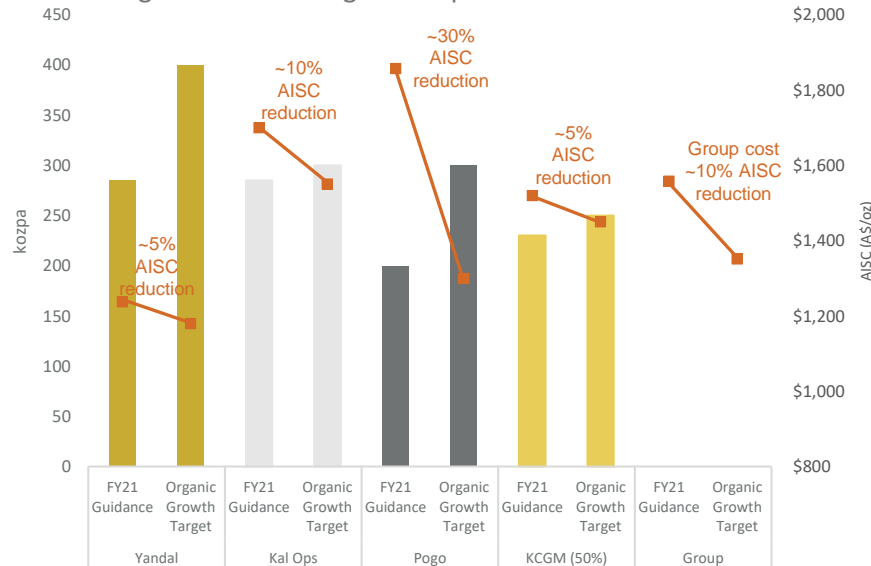


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NST Three Year Guidance Range

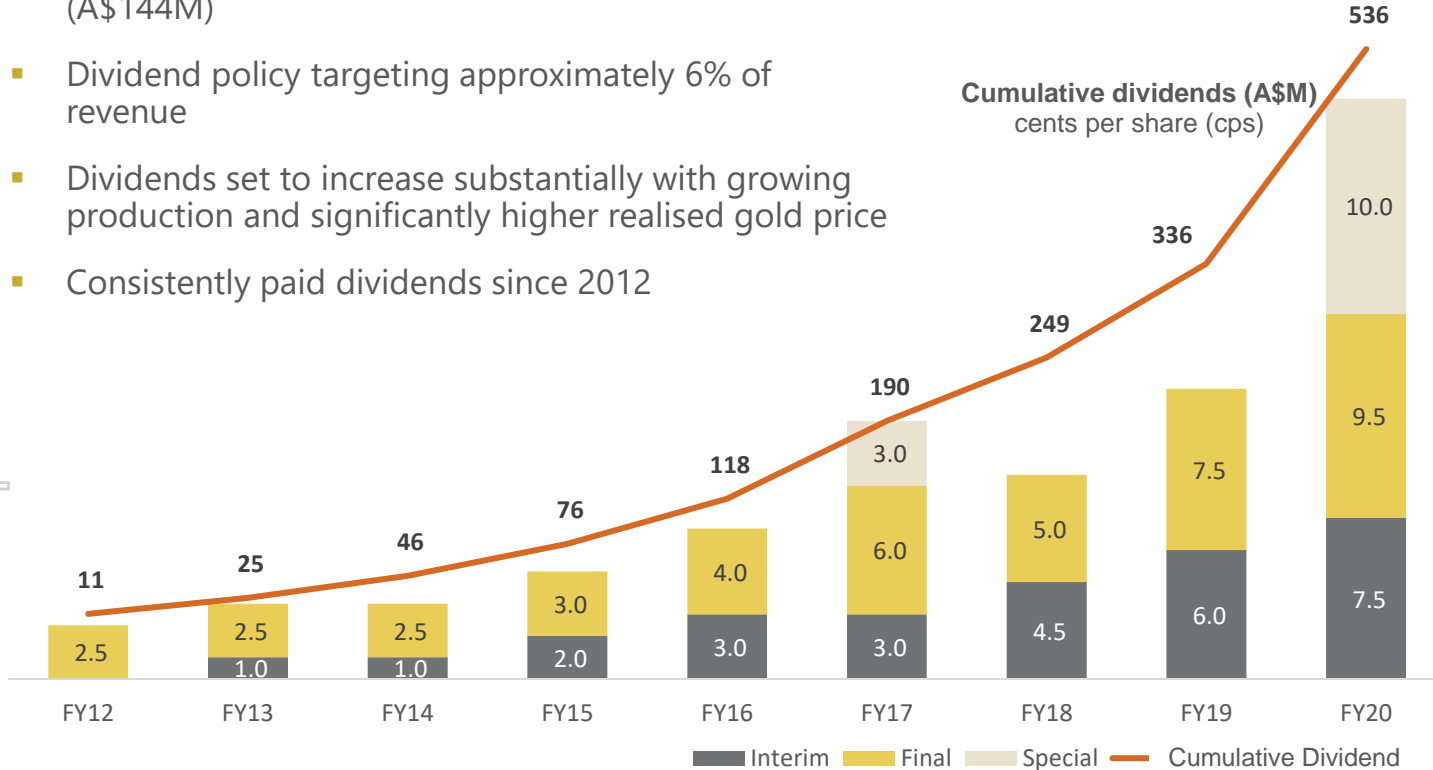


Organic Growth Targets compared to FY21 Guidance

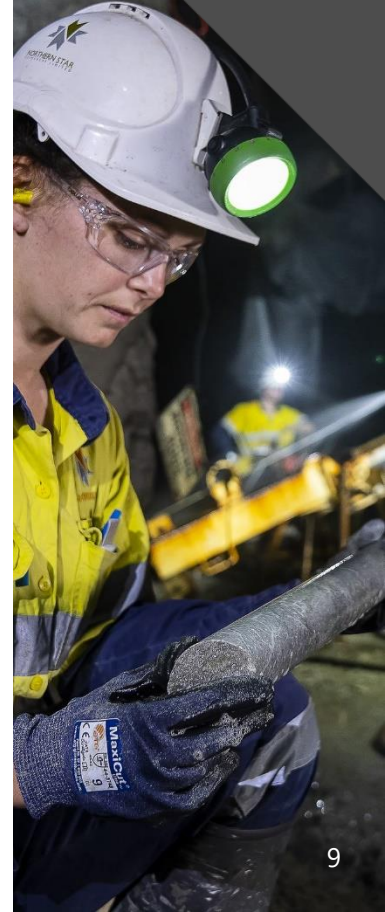


Dividends; increasing returns to Shareholders

- FY20 payout up 100% to A27.0cps full franked (A\$144M)
- Dividend policy targeting approximately 6% of revenue
- Dividends set to increase substantially with growing production and significantly higher realised gold price
- Consistently paid dividends since 2012



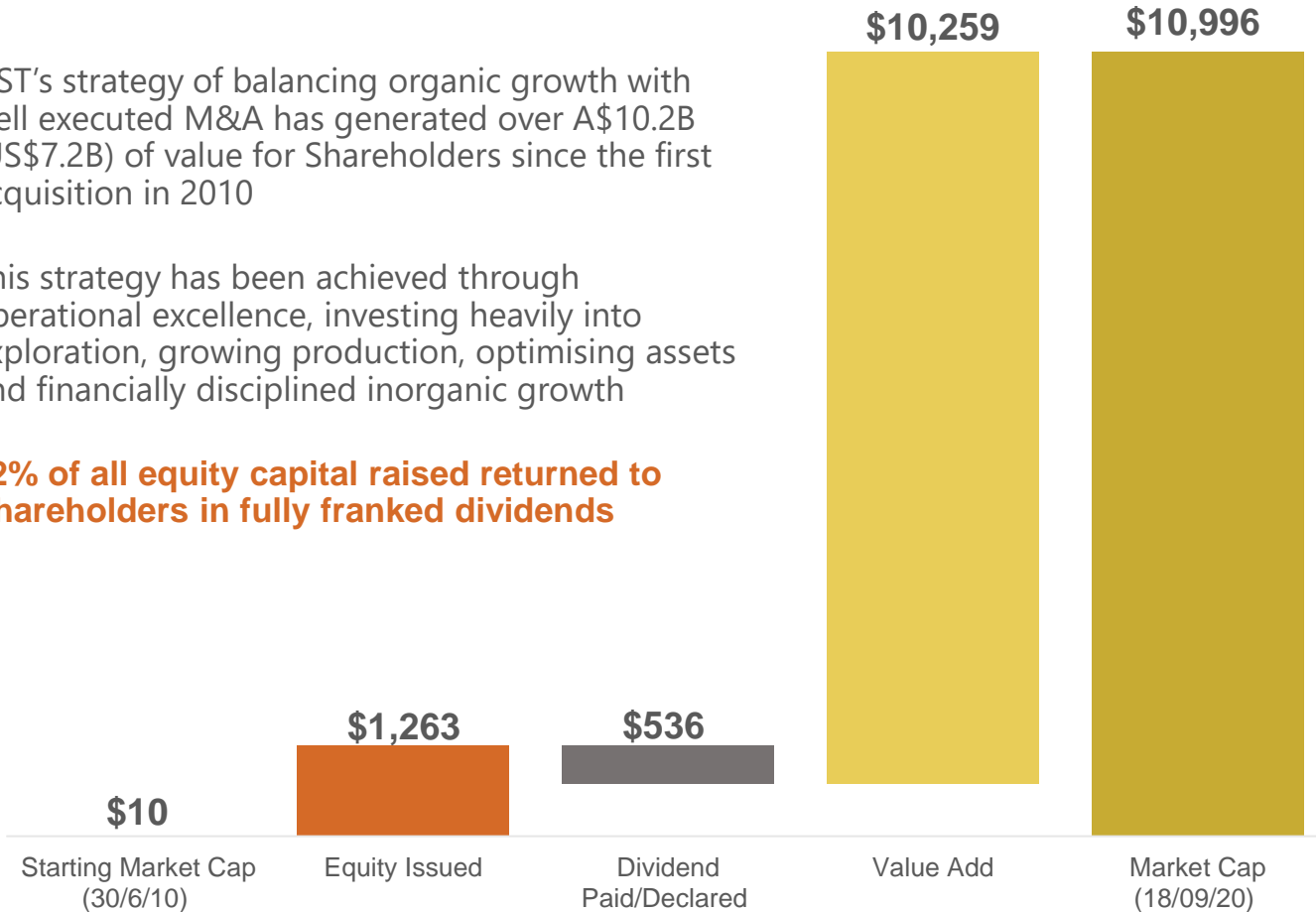
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Proven Value Generation

- NST's strategy of balancing organic growth with well executed M&A has generated over A\$10.2B (US\$7.2B) of value for Shareholders since the first acquisition in 2010
- This strategy has been achieved through operational excellence, investing heavily into exploration, growing production, optimising assets and financially disciplined inorganic growth
- **42% of all equity capital raised returned to Shareholders in fully franked dividends**

A\$M



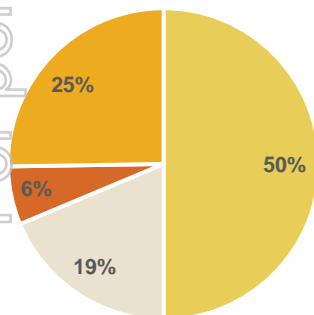
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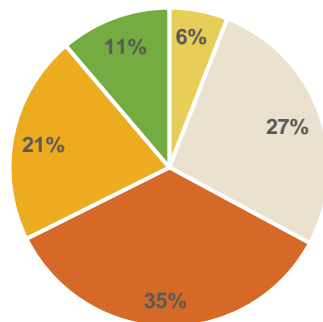
FY21 Guidance

FY21 Guidance	Production (koz)	AISC (US\$/oz)	Growth Capex (US\$M)
Yandal Operations	270 - 300	840 - 890	26
Kalgoorlie Operations	270 - 300	1,155 - 1,225	8
KCGM (50%)	220 - 240	1,030 - 1,100	70
Pogo Operations (US)	180 - 220	1,200 - 1,400	35
GROUP PRODUCTION	940 - 1060	1,050 - 1,140	139

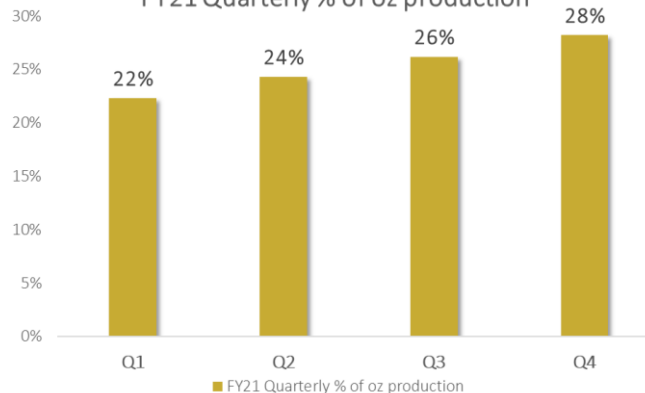
FY21 Growth Capex
(US\$139M)



FY21 Exploration Capex
(US\$71M)



FY21 Quarterly % of oz production



■ KCGM (50%) ■ Yandal ■ Kalgoorlie ■ Pogo ■ Regional



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Operations



Kalgoorlie “Super Pit” - KCGM Overview (NST 50%)

- US\$775M acquisition of 50% KCGM was completed early January 2020
- Strong platform set for growth, with 15-year mine life visibility based on Reserves, with production set to ramp up to +675koz per annum by FY28

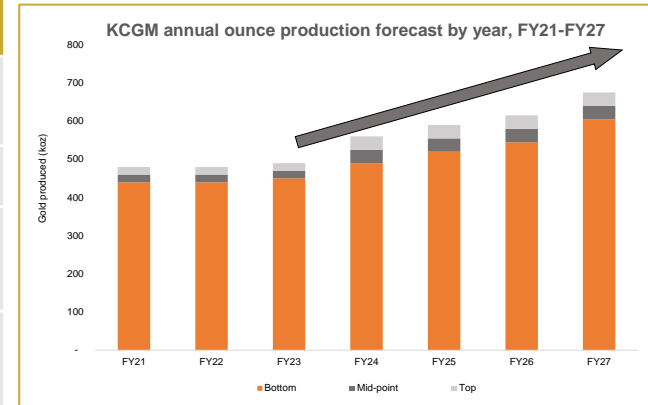
ORE RESERVES AND MINERAL RESOURCES AT 30 JUNE 2020¹

Ore Reserves	240Mt @ 1.3gpt for 9.7Moz (120Mt @ 1.3gpt for 4.8Moz NST Attributable)
Mineral Resources	380Mt @ 1.6gpt for 19.0Moz (190Mt @ 1.6gpt for 9.5Moz NST Attributable)

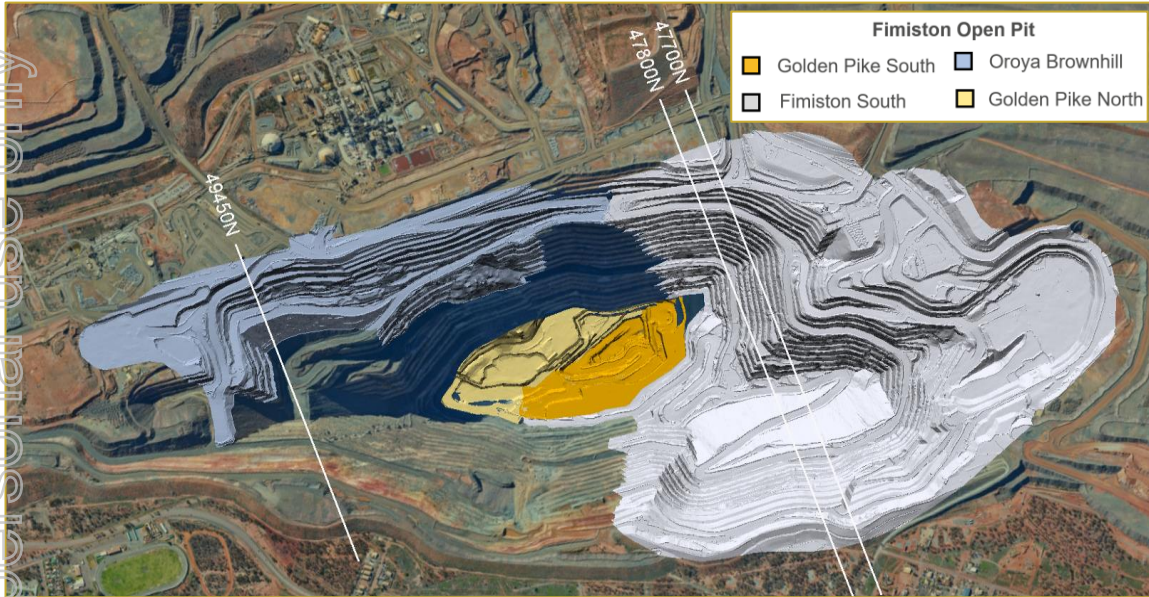
FORECAST

Production Guidance	FY21: 440 - 480koz (220 - 240koz NST Attributable)	
AISC	FY21: US\$1,030-1,100/oz	
Growth & De-risking Capital Expenditure	FY21: US\$140M (US\$70M NST Attributable)	FY22: US\$168-190M (US\$84-95M NST Attributable)
Exploration / Resource Evaluation²	FY21: US\$8M (US\$4M NST Attributable)	

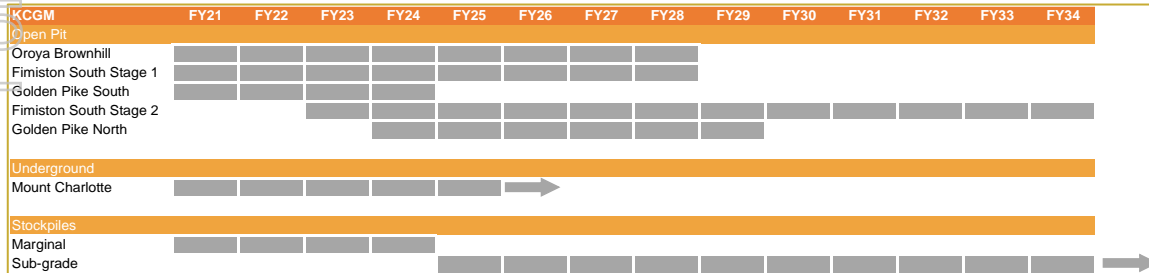
- Successful transition to new ownership. Outstanding relationship with a like-minded JV Partner with complementary skills to unlock latent value
- Significant maiden JORC (2012) Reserves & Resources delivered in August 2020
- Capital investment to deliver sustained long-term production growth and stability



KCGM Fimiston Super Pit



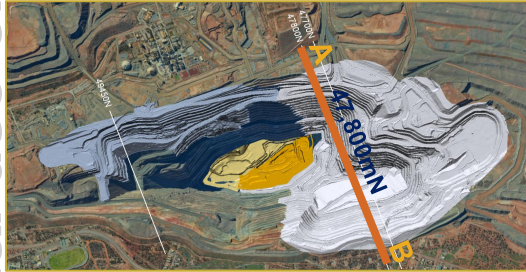
ABOVE: Image showing the planned Fimiston cutback locations BELOW: Forecast production source by financial year (FY21-FY34)



- Long-life robust plan that delivers 15yrs based on current Reserves of 9.7Moz (100%)**
- Revised mine plan developed has increased the mining areas from two to three:
 - Golden Pike
 - Morrison
 - Oroya Brownhill (OBH)
- A fourth area (Fimiston South) is scheduled to be online in the 2H FY2021
- The OBH cutback addresses remediation of the East wall failure that occurred in May 2018
- New cutbacks will:
 - Boost mining productivities
 - Improve costs
 - Deliver higher grades to the mill by displacing lower grade stockpile feed
- Significant productivity and cost improvement initiatives are planned at KCGM, with total movement forecast to be restored to 70-80Mtpa
- A maiden Reserve for the Fimiston South of 3.9Moz, provides the baseload of future pit production

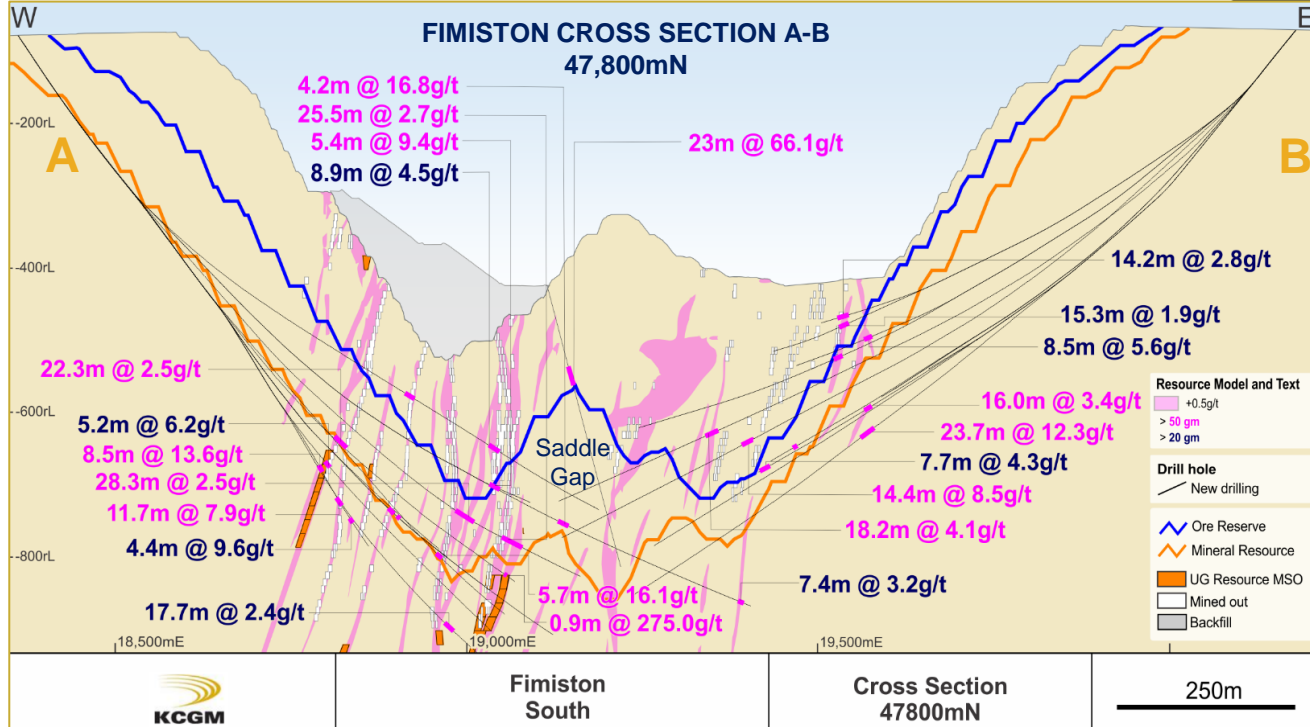
Fimiston Open Pit Growth Potential

- Historical drilling and drilling completed since the new JV ownership demonstrates significant upside potential both within and outside of the current Resource optimisation



ABOVE: Plan view of Fimiston cutback stages with the location of the 47,800mN cross section shown

- Recent infill drilling completed at Fimiston has identified additional lode material both within and proximal to the Ore Reserve design (A\$1,750) and Resource optimisation (A\$2,250)
- The highlight was 23m @ 66.1gpt (down hole width) intersection at the top of the pit design 'saddle'
- Numerous mineralised intersections to further follow up on
- Resource averages a globally leading 45,000oz per vertical metre

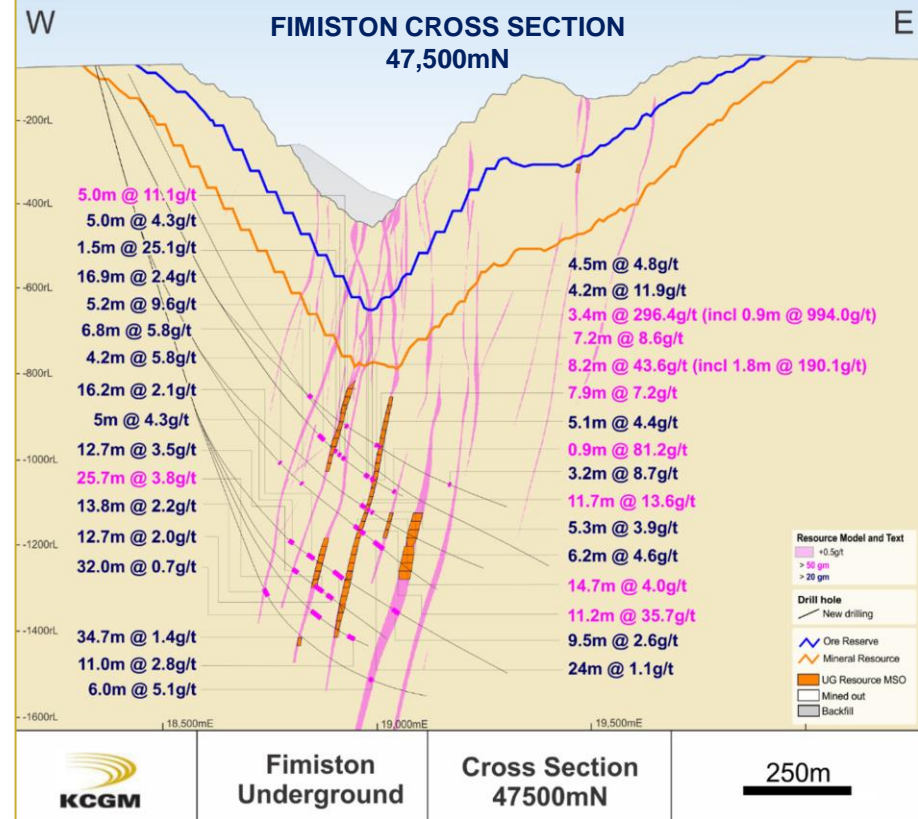
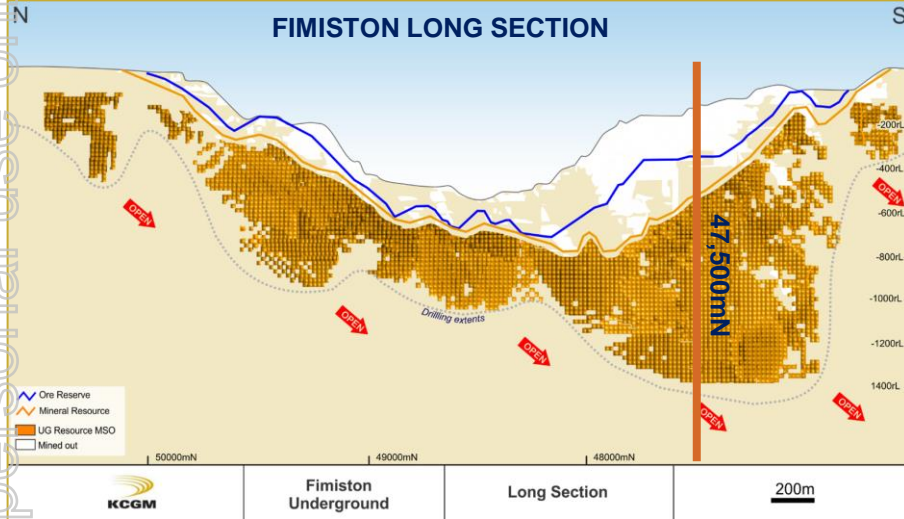


47,800mN E-W cross section through the Fimiston deposit, with select intersections shown. Note that intersection widths shown are down hole lengths.

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Fimiston Underground

- Deep drilling beneath the June 2020 Open Pit Resource demonstrates the continuity of Fimiston mineralisation at depth, providing future underground targets



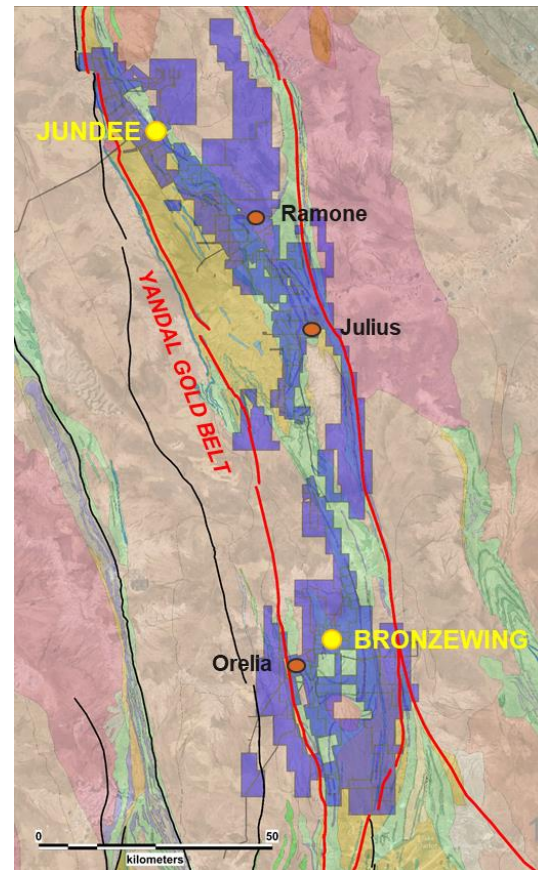
ABOVE: Long projection of the Fimiston deposit showing extent of drill testing. RIGHT: E-W Cross Section through the Fimiston Deposit at 47,500mN with select intersections shown. Note: Intersection width are down hole lengths.

- Declaration of a maiden JORC (2012) Mineral Resource of **25Mt @ 2.8gpt for 2.2Moz**
- Mineralisation remains **open in all directions**
- A\$10M** has been allocated in the FY21 budget to re-establish underground accesses to Fimiston via in-pit portals, with the primary objective to provide drill platforms

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Yandal Operation - Growing to 400kozpa

- Yandal Operation has been “recreated” with Jundee and Bronzewing as the primary ore sources
- Addition of Bronzewing grows Yandal production to 400kozpa in 3 years time
- Production growth backed by Resources of 6.9Moz and Reserves of 2.8Moz; supporting a minimum of 7 years life
- FY21 guidance of 270,000oz-300,000oz at an AISC of US\$840-US\$890/oz
- 2.7Mtpa processing capacity upgrade successfully delivered in FY20 and under budget
- Study options for the processing capacity expansion to 5Mtpa are well underway
- Grade control drilling for the Orelia open pit to commence shortly
- Significant exploration potential exists along 180km strike of the prolific Yandal greenstone belt



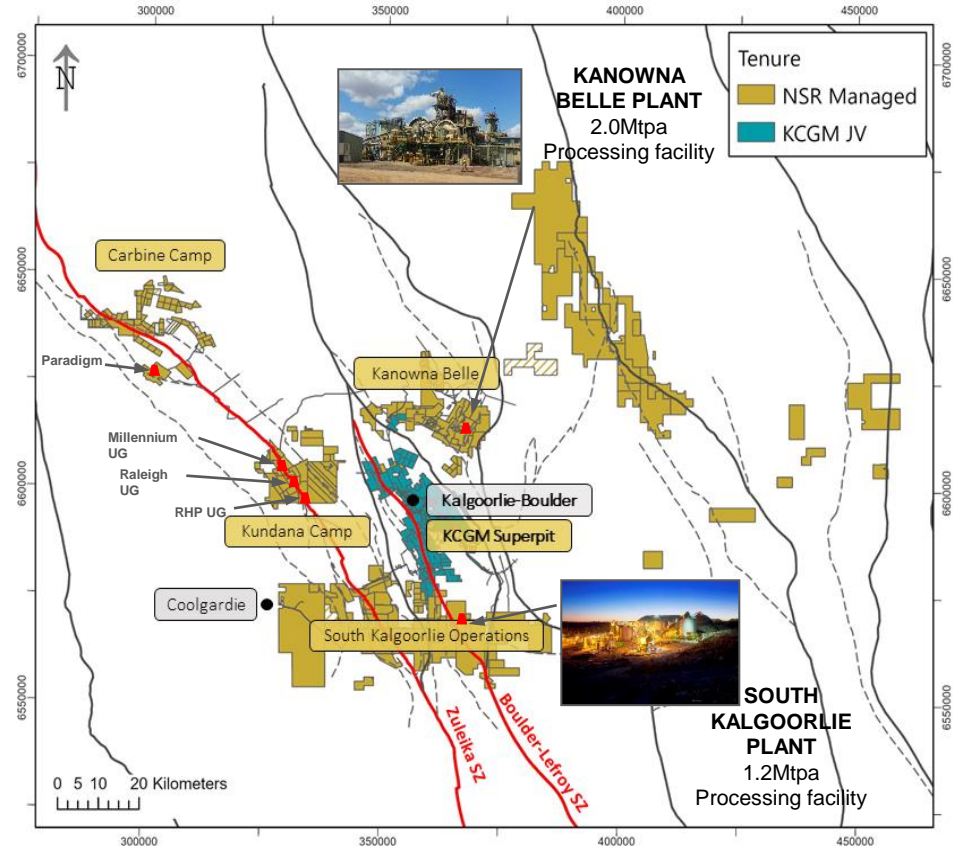
Pogo - Pathway to 300kozpa

- Pogo is a world-class 11Moz gold endowment, that has produced in-excess of 4Moz at an average grade of over 12gpt
- It has one of the world's highest Resource grades of an orebody greater than 5Moz, with an existing Resource of 6.7Moz at 9.8gpt and a Reserve of 1.5Moz at 8.0gpt
- FY21 guidance of 180,000oz-220,000oz at an AISC US\$1,200-US\$1,400/oz; delivering great free cashflow as the mine rebuilds
- September Qtr production is expected to be ~50koz, despite operating under restrictive and strict COVID-19 protocols, which took time to adjust to in the June Qtr and in the month of July
- Record month of production and free cash flow generation was achieved in August, with 22,791oz of gold produced
- The US\$30M plant expansion to 1.3Mtpa is 60% complete and will be commissioned by the middle of 2021
- This expansion will enable Pogo to reach a sustainable run-rate of ~300kozpa in the next couple of years
- Goodpaster US\$15M Resource drill out is underway; multi million ounce discovery potential within 1km of existing infrastructure; visible gold intersected in initial holes



Kalgoorlie Operations - Great leverage to gold price

- FY20 gold sold was 317,248oz at AISC of US\$1,095/oz; delivering significant free cashflow
- FY21 production guidance of 270,000oz-300,000oz at an AISC of US\$1,155-US\$1,225/oz
- Processing capacity of 3.2Mtpa with two fully utilised process plants Kanowna Belle (2.0Mtpa) and Jubilee (1.2Mtpa); plus access to regional toll-treatment options as required
- Significant leverage to the gold price across the operation with ~7Moz in Resources, numerous growth options
- Exploring options to extract significant value from the substantial open pit inventory



NST - Set another world development record

- In the month of March 2020 a single jumbo achieved a world record of 1,033.4 metres (~3,400 feet) of lateral development at our Kalgoorlie Operations
- This machine also completed all the ground support for the 1,033.4 metres of development
- The previous world record of 754.3 metres was achieved by our Jundee Team in August 2019
- There were no safety related incidents and was achieved through COVID-19 restrictions
- Key to success was preparation, planning, scheduling, optimisation, management and letting the team execute
- This demonstrates the unique skill sets of Northern Star's underground capabilities and sets the bar for the Global Industry



Northern Star Resources Limited

ASX Code: NST

An Australian gold miner – for global investors

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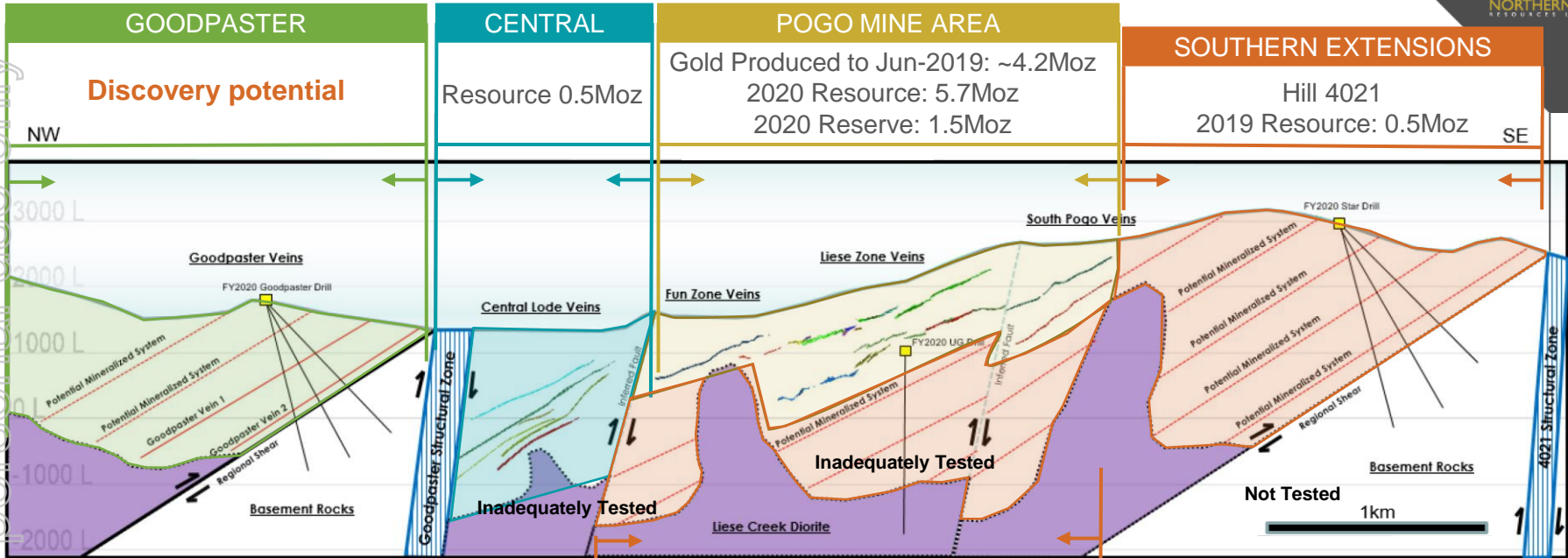
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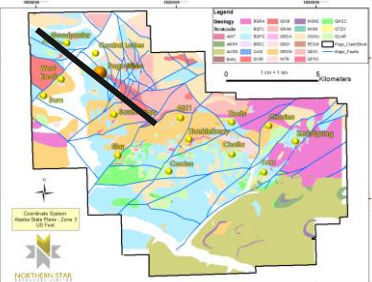
Inventum 3D Page Links [click here](#)



Pogo - an emerging camp scale system



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Stacked
Vein System
above a
basal Shear

LOWER LIESE
Discovery potential

- Pogo is developing into a CAMP SCALE rather than a DEPOSIT

Goodpaster - New discovery, a Pogo analogue?

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- The Goodpaster discovery extends over 2.3km along strike and remains open in every direction
- The current Goodpaster interpretation consists of a series of stacked lodes with 3 lodes identified to date
- NST is investing A\$25M across the Pogo tenement package in FY21
- Hill 4021 resource of 0.5Moz at 8gpt
- Key prospects include: Hill 4021, Burn, Cholla

