

Business First

Diggers & Dealers Mining Forum
August 2021



Forward Looking Statements, Reserves and Resources

Forward Looking Statements

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ASX Listing Rules Disclosures

The information in this announcement that relates to the Ore Reserves and Mineral Resources, and production targets of Northern Star has been extracted from the ASX release by Northern Star entitled "Resources, Reserves and Exploration Update" dated 3 May 2021 available at www.nsrld.com and www.asx.com (**Northern Star Announcement**).

Northern Star confirms that it is not aware of any new information or data that materially affects the information included in the Northern Star Announcement and, in relation to the estimates of Northern Star's Ore Reserves and Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the Northern Star Announcement 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 that announcement.

Statements in this ASX Announcement comparing Northern Star's 31 March 2021 Ore Reserves and Northern Star's 31 March 2021 Mineral Resources to previously announced Ore Reserves and Mineral Resources, are comparisons to the combined production guidance profile of Northern Star post-merger implementation date of 12 February 2021, as disclosed in the Scheme Booklet issued by Saracen Mineral Holdings Ltd dated 10 December 2020 at sections 7.1 to 7.3.

Assumptions made in relation to the Ore Reserves and Mineral Resources underpinning the production targets in that announcement are (in summary):

- Current operational capital and operating cost structures,
- Current mining and metallurgical performance,
- The gold price, exchange rate, dilution allowance and mining recovery rates are as set out in each prior public report referred to in ASX Listing Rule 5.19 disclosures, and
- 5 year gold production profiles are based on 100% current JORC compliant Ore Reserves.

Rounding is applied in this ASX Announcement for the percentage comparisons and for the 31 March 2021 Ore Reserves and Mineral Resources figures.

All currency conversions in this document were converted at a spot conversion rate of AUD/USD of \$0.75.

Authorised to release to the ASX by Stuart Tonkin, Managing Director.

Indigenous Peoples Statement



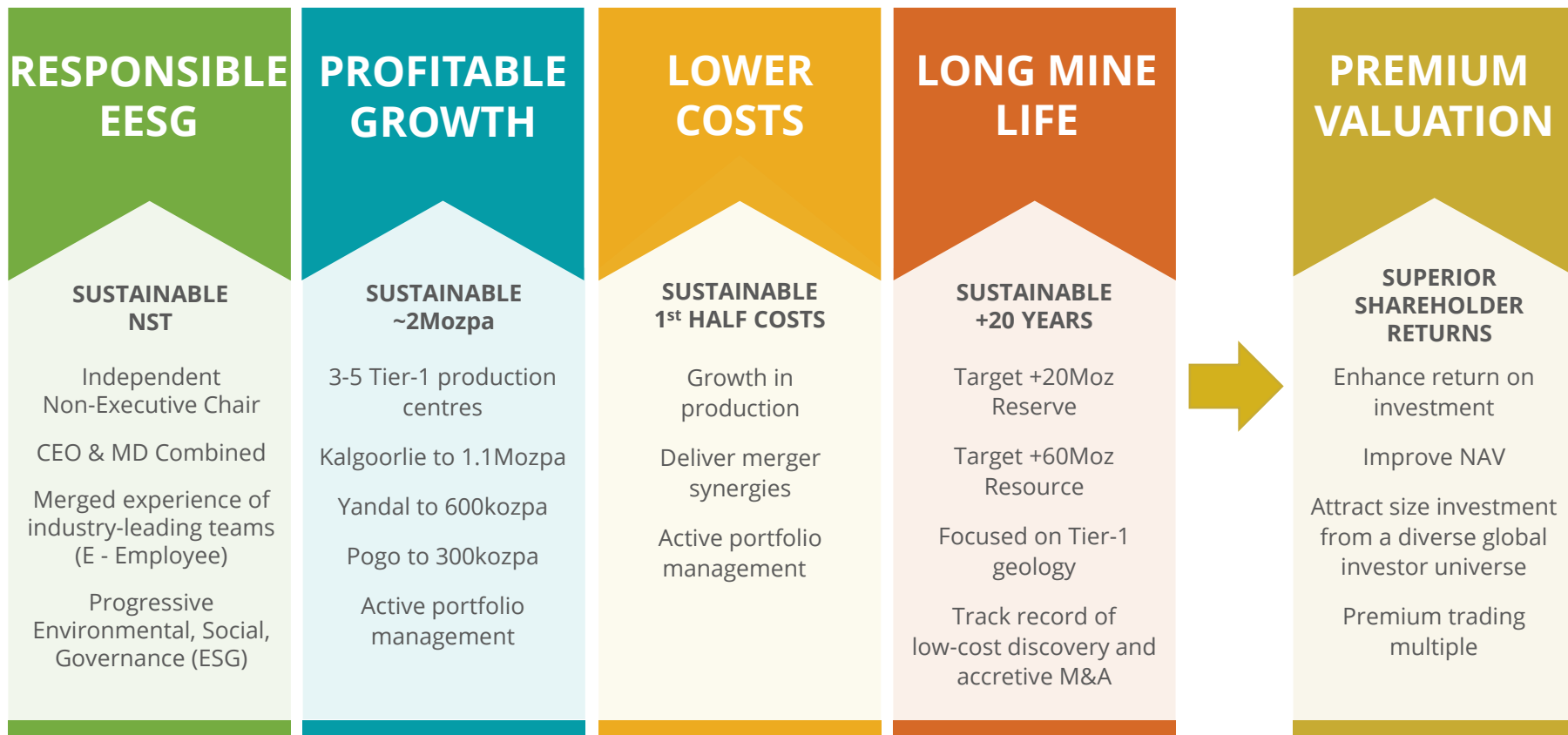
Northern Star would like to acknowledge and pay our respects to Traditional Owner groups whose land we are privileged to work on, and whose input and guidance we seek and value within the operation of our business.

We acknowledge their strong and special physical and cultural connections to their ancestral lands.

- Whadjuk Noongar
- The Wiluna Martu
- Kultju
- Tjiwarl
- Maduwongga
- Marlinyu Ghoorlie
- Tjurabalan
- Walpiri and Yapa
- Puutu Kunti Kurrama and Pinikura
- Jurruru
- Yinhawongka
- Nyalpa

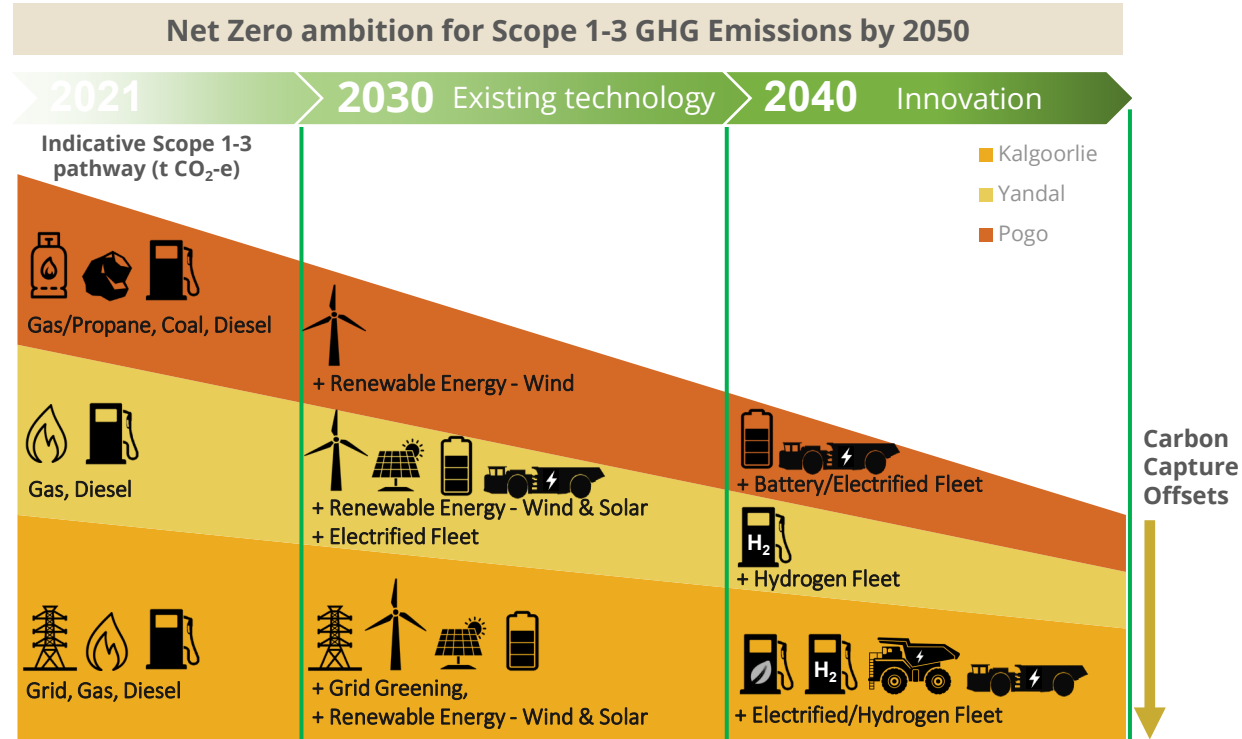
We also acknowledge Doyon Limited, whose traditional lands surrounds our Pogo Operation in Alaska, USA.

Business First - Value Creating Formula



Responsible EESG

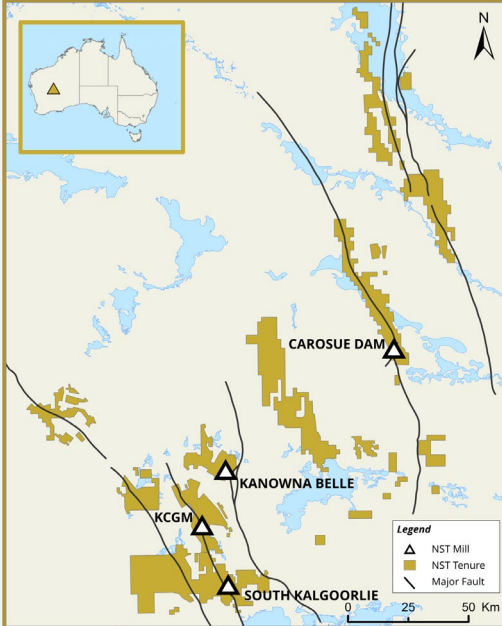
- **Michael Chaney AO - Independent Non-Executive Chair**, commenced 1 July 2021
- **Stuart Tonkin - Managing Director** (NST tenure 5 years CEO / 3 years Chief Operating Officer)
- **Industry leading safety performance** - TRIFR 5.6 (more than 10% below industry average)
- **Responsible EESG / positive legacy:**
 - Employee - Job security, growth development opportunities
 - Environmental - Minimise the environmental footprint
 - Social - Positive legacy for all our stakeholders
 - Governance - Enhanced governance across the business



A simple business - Three large-scale production centres

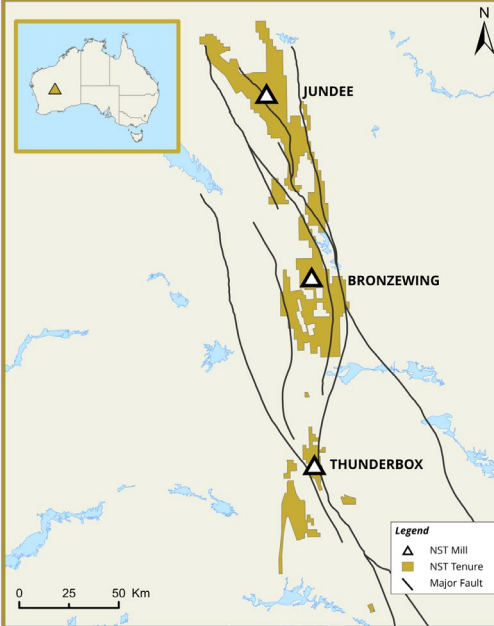
Kalgoorlie to 1.1Mozpa

Reserves: 314Mt @ 1.5g/t for 15.0Moz
Resources: 666Mt @ 1.8g/t for 37.6Moz
Processing capacity: 20.0Mtpa



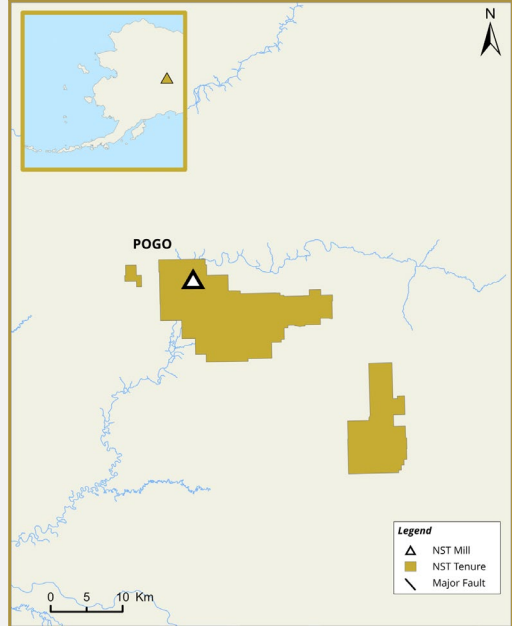
Yandal to 600kozpa

Reserves: 67Mt @ 2.1g/t for 4.5Moz
Resources: 141Mt @ 2.2g/t for 10.1Moz
Processing capacity: 5.5Mtpa



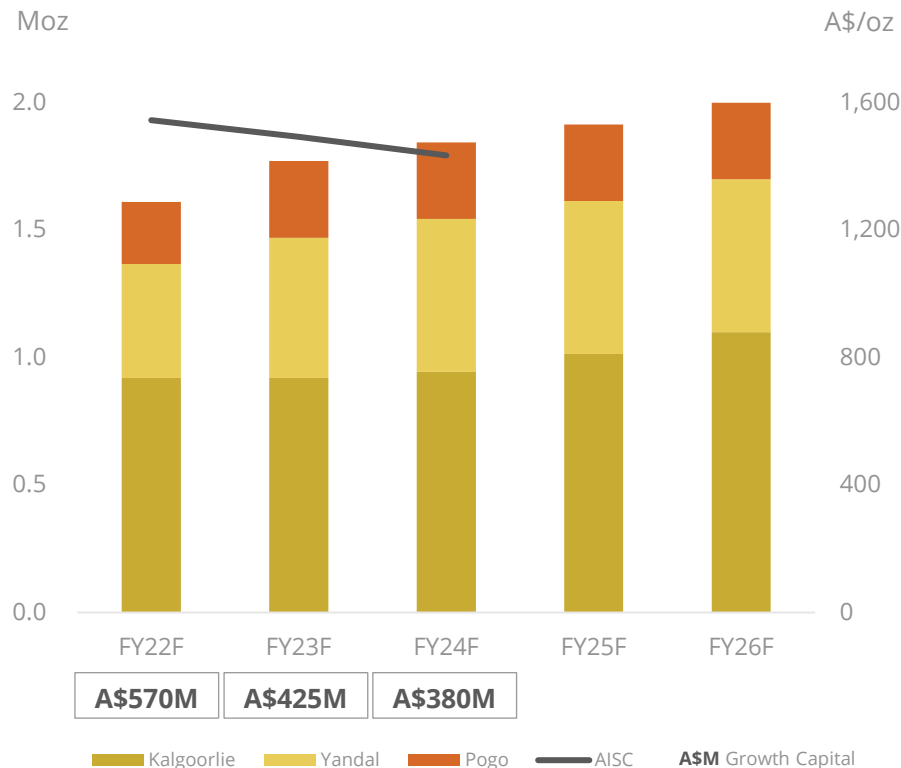
Pogo to 300kozpa

Reserves: 5.9Mt @ 8.0g/t for 1.5Moz
Resources: 23Mt @ 9.4g/t for 6.9Moz
Processing capacity: 1.3Mtpa (expanded)



Profitable growth generates strong cashflows

Group production outlook



Profitable production growth to 2Mozpa

- Kalgoorlie to 1.1Mozpa
- Yandal to 600kozpa
- Pogo to 300kozpa

...where it counts most:

- KCGM increasing to 650koz in FY26; 700koz in FY28
- **Declining AISC** - As quantity / quality of ounces increases
- **Declining AIC** - As growth capital rolls off

Outlook excludes Kundana divestment assets (FY21 production 120,943oz)

FY22 guidance

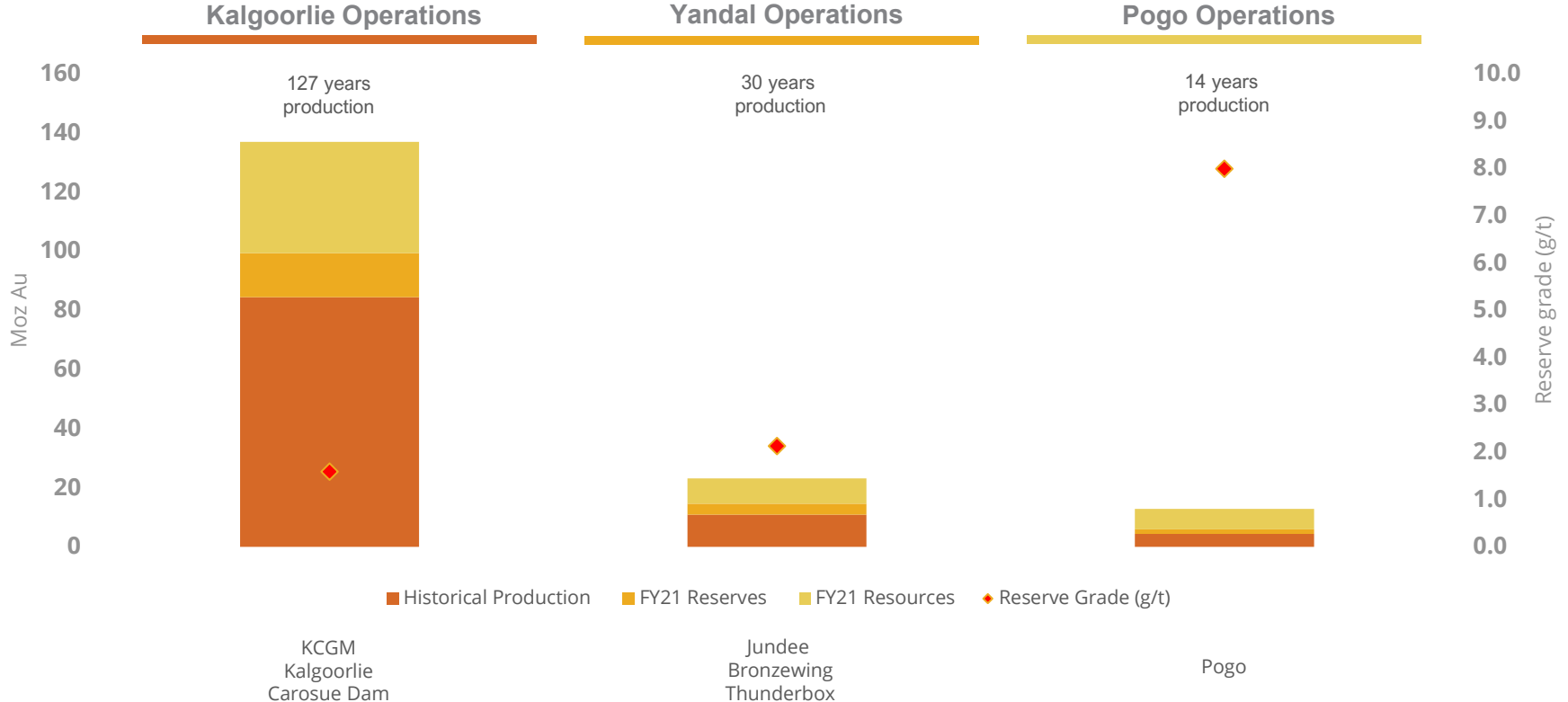
1.55-1.65Moz at AISC of A\$1,475-1,575/oz; A\$570M growth capital

	Gold production (koz)	AISC (A\$/oz)	Growth capital (A\$M)	Exploration (A\$M)
Kalgoorlie	900-950	1,500-1,600	230	
Yandal	430-450	1,375-1,475	270	
Pogo	220-250	1,700-1,800 (US\$1,275-1,350/oz)	70 (~US\$55M)	
Group*	1,550-1,650	1,475-1,575	570	140

- Gold production is weighted towards the second half of FY22, driven by increasing grades at Yandal and increasing mining rates at Pogo; AISC decreases over the 12 month period

Geological endowment - A major value driver

Consolidation of world-class gold systems, exclusively in Tier-1 jurisdictions

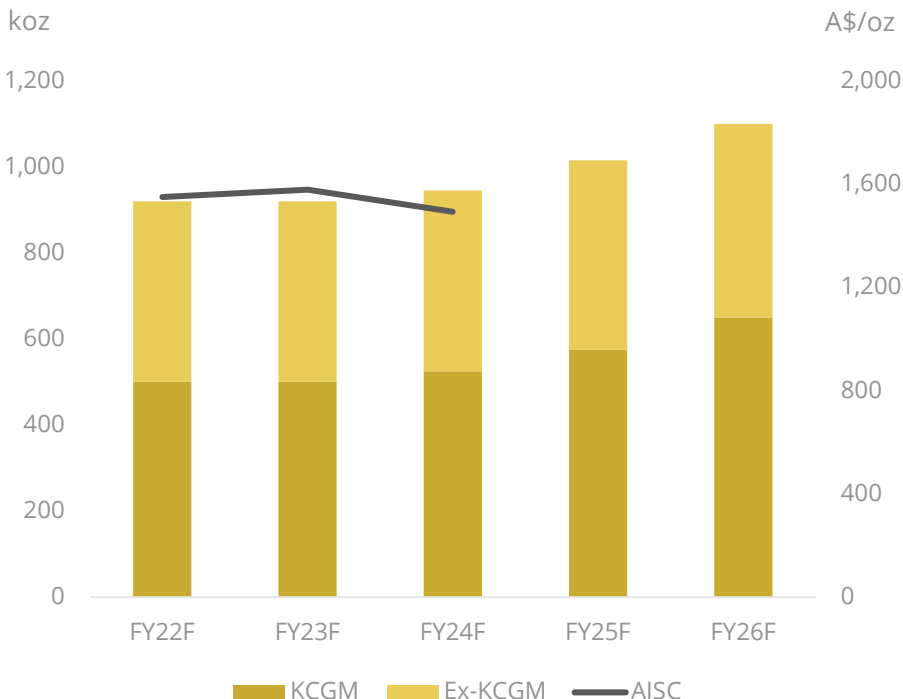


Kalgoorlie Production Centre

Envable optionality

- **Simplify the business, divert capital to grow the high margin assets**, where it counts
- **Reduce costs with regional synergies**
- **Envable optionality:**
 - Open pit and underground mines with significant installed infrastructure
 - Large and growing Reserves and Resources (+8% and +15% respectively over last 9 months, post mining depletion)
- **Historical production performance** (under previous ownership, pre-East Wall slip) **supports NST's long term growth plans to +700koz by FY28**

Kalgoorlie production outlook



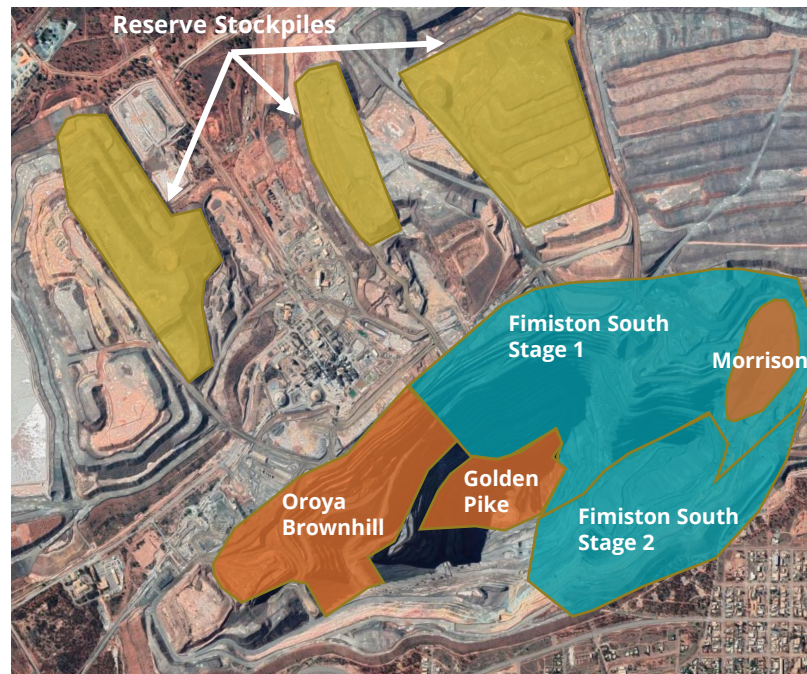
Kalgoorlie Production Centre

KCGM - Open pits get better every day

- **All open pit mining - 17 years from 4 areas:**
 - **7.8Moz Reserves** targeting conversion of 2.0Moz Inferred Resource within Reserve shell
 - Strip ratio 10:1 (falls to 7.2:1 including Inferred Resources*)
- **Targeted total material movement 80-100Mtpa**
- **Large surface stockpiles - 125Mt ore (2.9Moz Reserves)**
 - Stockpile grades compare well with many peer open pit mines globally - But with **NO cash mining costs**
- **Mining outperformed Reserves over FY21; 51% more ore tonnes and 34% more ounces**

	Ore (Mt)	Grade (g/t)	Gold (koz)
Reserve	5.6	1.5	275
Actual mined	8.5	1.4	370
Additional ore	2.9	1.0	94
	51%		34%

Super Pit cutbacks

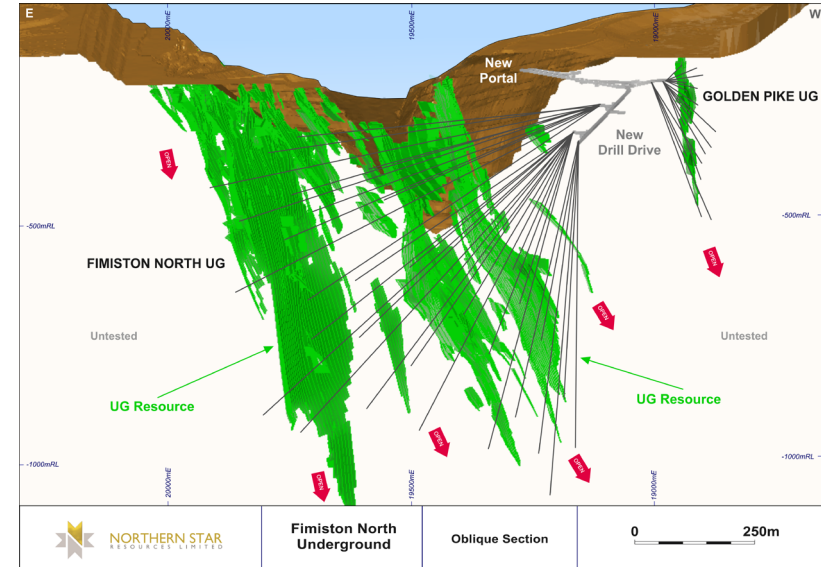


Kalgoorlie Production Centre

KCGM - Fimiston underground; A brand new chapter

- KCGM offers world class scale:
 - Endowment 45,000 ounces per vertical metre
 - Large underground potential - Underground Resource 50Mt @ 2.5 g/t for **4.0Moz just the start**
 - Multi-year story with drilling to define additional Resources and optimum mining method
- Fimiston Underground commenced:
 - Development of multiple drill platforms
 - Drilling to commence September quarter 2021
 - Grade displacement opportunity in the mill - Increased ounces and margins
 - Fimiston Underground **NOT in current 5-year plan**
- Plus Mt Charlotte underground – Highest grade ore feed into the KCGM mill, >2.5Mtpa by FY25

Fimiston North West drill platform



Kalgoorlie Production Centre

KCGM - Processing optionality

- As mining increases, the Reserve stockpile value becomes increasingly stranded
- **Evaluating mill expansion options**
 - **NOT in current 5-year plan**
 - Simplified mill layout lowering unit costs
 - Mill grades decrease on increased throughput as stockpile is processed earlier
 - Option studies involve:
 - Simplified grinding circuit, fewer larger mills
 - Increased residence time / recovery opportunities
 - Control system optimisation
- **Market update June Half 2022**

KCGM processing studies

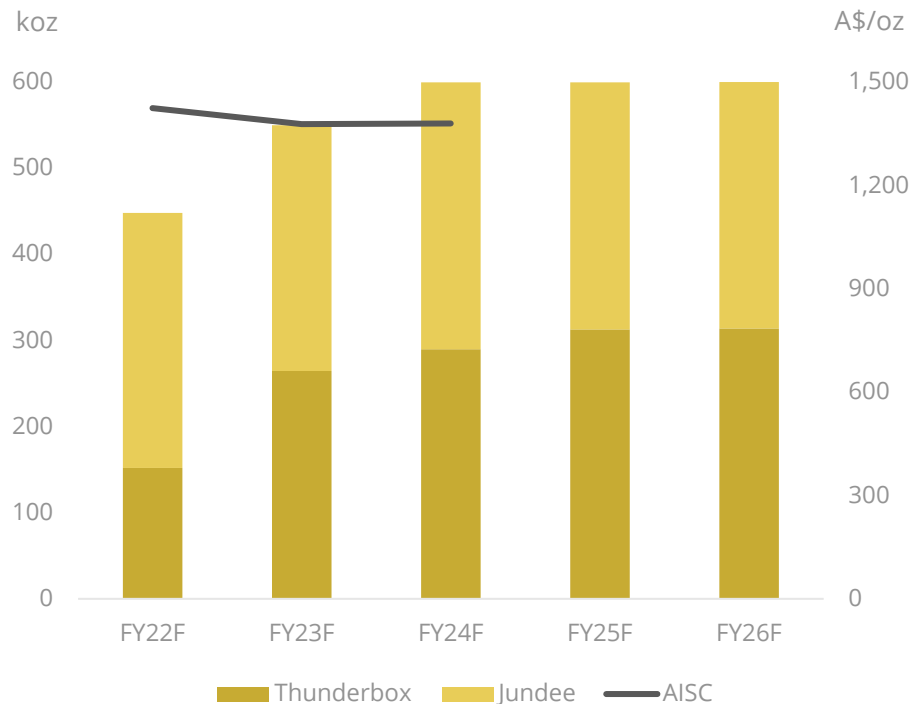
	Current	Option 1	Option 2
Number of mills	2 x SAG 3 x Ball	2 x SAG 2 x Ball	2 x SAG 1 x Ball
Throughput (Mtpa)	13	17	22
Mill grade (g/t)	1.4-1.9	1.7	1.6
Recovery (%)	84%	84%	84%
Production (kozpa)	500-675	750+	850+

Yandal Production Centre

Yandal 600

- Increase Thunderbox mill (TBO) to 6.0Mtpa; Jundee at 3.0Mtpa
- Total Yandal milling capacity **9.0Mtpa**
- **Growth underpinned by 4.5Moz Reserves (8 years)...**
- **...plus >10Moz Resources / track record of Resource conversion**
- **Highly accretive:**
 - Unlocks TBO processing savings by ~A\$5/t (~A\$100/oz)
 - Regional processing savings of ~A\$50/oz
 - Lower cost structure adds value to entire Yandal Resource base

Yandal production outlook

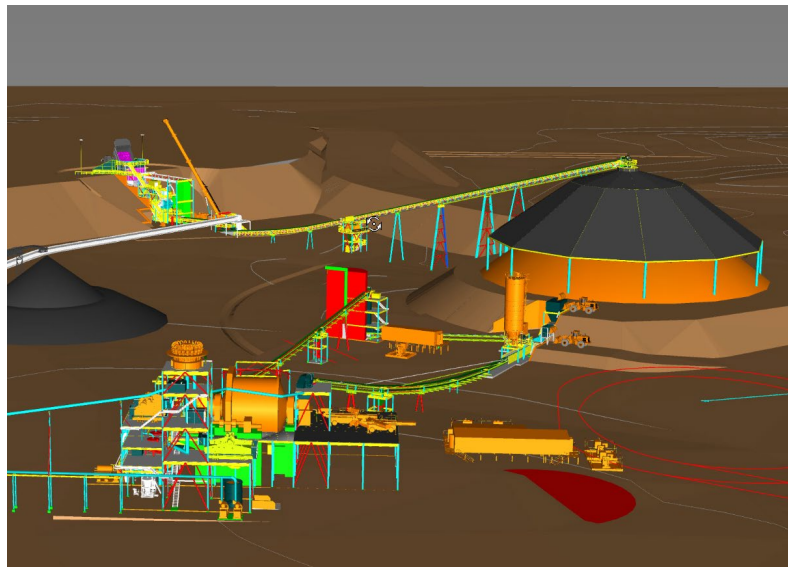


Yandal Production Centre

Growth capital A\$270M

- **Increase TBO mill to 6.0Mtpa (A\$180M):**
 - New 18MW mill and classification circuit
 - New leach tanks, elution and gold room upgrades
 - New tailing thickener and tailings pumping
 - Designed for 100% fresh ore
 - Reduces TBO processing cost by ~A\$5/t (~A\$100/oz)
- **A\$90M - Infrastructure / mine development**
- **Unlocks ~A\$220M synergy value:**
 - Regional processing savings (~A\$70M)
 - Reduced haulage cost from Orelia (~A\$100M)
 - Owner-operator model at Orelia open pit (~A\$50M)

Thunderbox 6.0Mtpa schematic

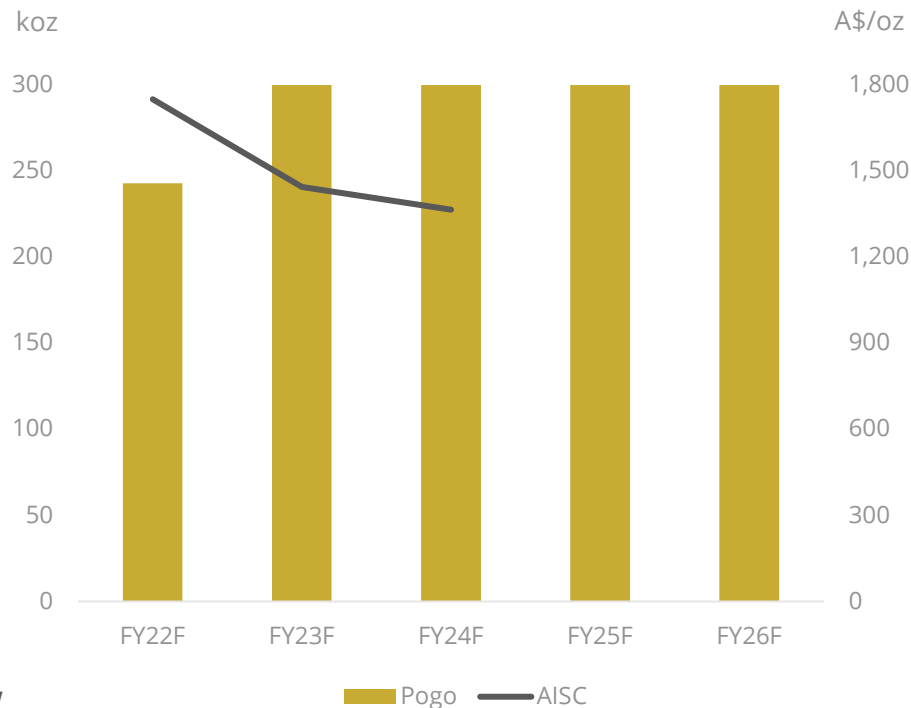


Pogo Production Centre

On the way to 300kozpa from FY23

- **High grade operation** with large Resource base; multiple extensional opportunities in an under-explored camp-scale district
- **FY21 guidance achieved**; FY22 production guidance represents a ~17% increase in ounces and 5% decrease in AISC v FY21
- Alaska vaccine rollout has seen COVID-19 cases reduced with minimal disruptions forecast in FY22
- FY22 growth capex ~US\$55M:
 - Processing upgrade to 1.3Mtpa - Imminent
 - UG development and infrastructure to bring on additional mining fronts
 - Set up surface infrastructure for growth
- **Costs to reduce** as operational improvements flow through and more production fronts are accessed

Pogo production outlook



Balance sheet - Robust and flexible

Disciplined capital allocation:

- Balance between re-investment (organic / inorganic), dividends, retained earnings

Financial metrics

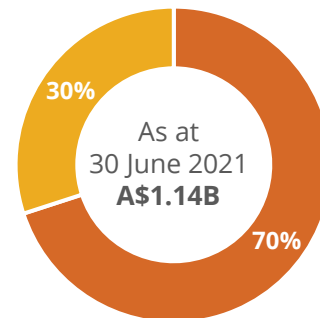
Measure	Target Range	
Leverage Ratio (Net Debt / EBITDA)	Leverage ratio less than 1.5x	✓
Gearing Ratio (Debt / Debt + Equity)	Gearing below 20%	✓
Liquidity	A\$1.0–1.5B (~1/3 in cash & bullion)	✓

Refinanced debt:

- Upsized facility, extended maturity profile, improved terms

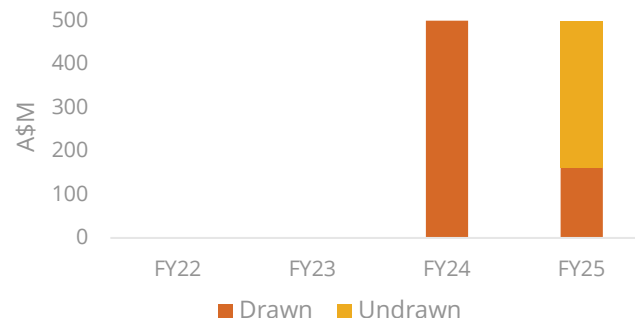
FY22 D&A outlook A\$600-650/oz sold

Liquidity Position








■ Cash & Bullion ■ Available Credit

Debt Maturity Profile



The recipe for outperformance

NST:

- Long life, profitable growth 
- Consistent delivery v guidance Opportunity
- Progressive ESG 
- Exclusively in Tier-1 locations 
- Migrating down the cost curve Opportunity
- Value-accretive M&A 
- Retain the right people 

Gold industry challenges:

- Declining Reserves and production
- Variable delivery (operational, financial)
- Progressive ESG
- Increasing jurisdictional risk
- Increasing costs
- Value destructive M&A
- High turnover

Why Northern Star is a stand-out gold investment



- **Business first** - Leveraging operating / technical skills and disciplined capital management to deliver superior shareholder returns
- **Tier-1 jurisdictions** - Exclusively
- **Capital discipline** - Balance between shareholder returns and re-investment, active portfolio management
- **Profitable growth where it counts** - Simple production centres with scale, lower costs, life and management track record
- **Sustainability in all that we do** - ESG, talent retention, mine life, lower costs

Northern Star Resources Limited

ASX Code: NST

Business First

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