

EXPANSION PROJECTS AND GROWTH TRAJECTORY OF THE NAVACHAB GOLD MINE

MINING EXPO - 2022

George Botshiwe Managing Director

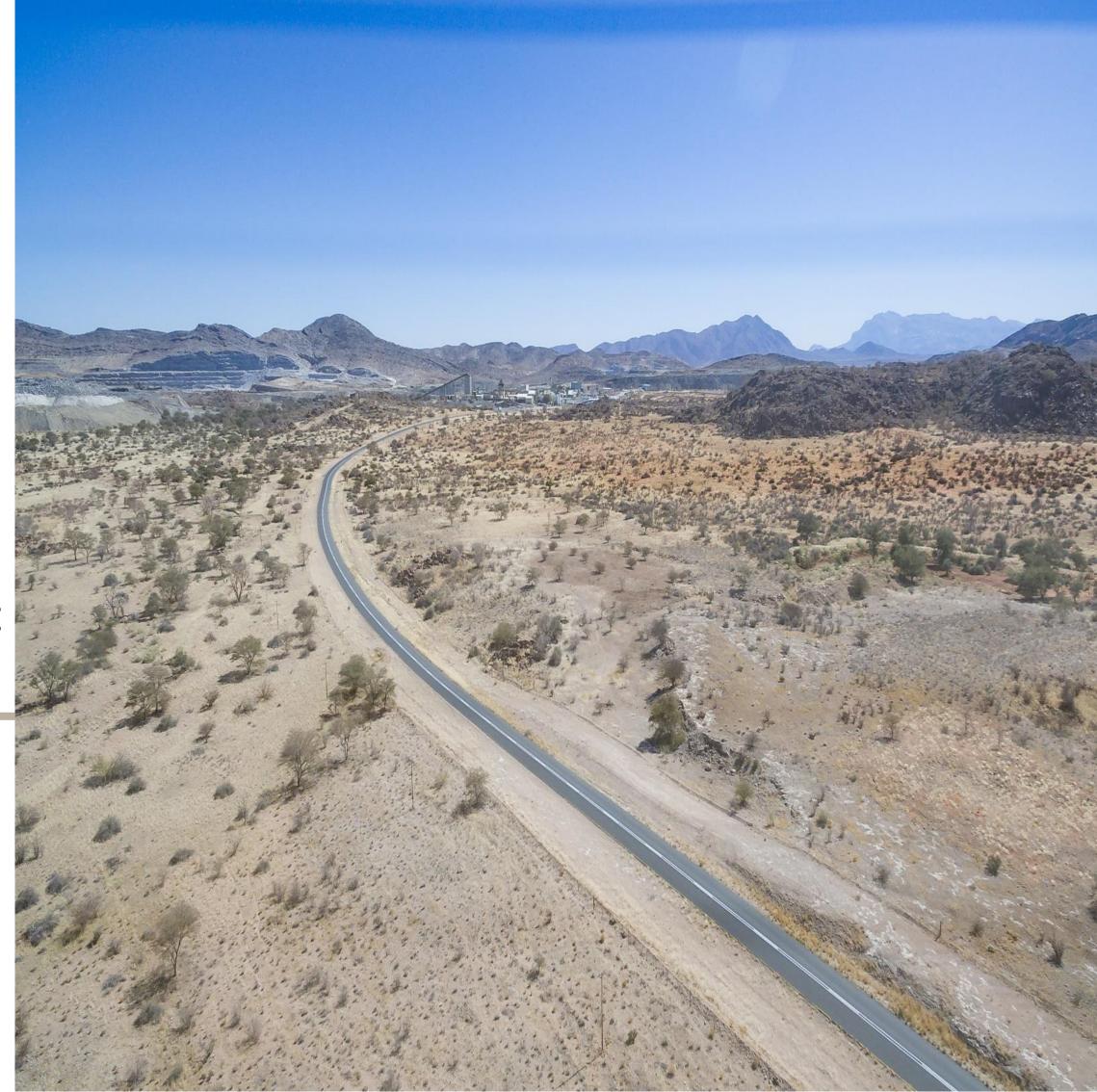


TABLE OF CONTENT



- 1. Navachab Overview
- 2. Navachab Asset History Timeline
- 3. Strategic Review
- 4. Operations Restructuring Project Khaima
- 5. Mining Expansion and Capacity Timeline
- 6. Underground Feasibility Study
- 7. Processing Expansion & Capacity Timeline
- 8. Expansion Value Addition
- 9. Community Development

NAVACHAB OVERVIEW

Target mill capacity:

Total production:

Avg. production:

Avg. AISC:



	Ownership:	92.5% QKR, 7.5% Epangelo				
Overview	Location:	Located 10km from the town of Karibib, and 180km west of the capital, Windhoek				
	History:	Production commenced in 1989. QKR acquired Navachab from AngloGold in 2014				
	Commodity:	Gold				
	Mine type:	Open pit (operating) Underground (trial mine commenced in Mar-2021)				
	Processing:	 Conventional carbon-in-pulp ("CIP") plant, fed by a SAG milling circuits with 1.7 Mtpa operating capacity ARGO high-pressure grinding mill in construction (1.3 Mtpa). From 2023 total milling capacity will be 3Mtpa ARGO circuit includes upgrading via a pre-concentrate plant ("PCP"), dense medium separation ("DMS") and X-ray transmitter sorter ("XRT") plants 				
	Contained mineral : - Reserves: - Resources:	as per JORC 2012 guidelines 2.43moz (0.99 g/t) 5.16moz (1.14 g/t)				
	Employments:	717 employees and 559 contractors				
			LOM			
S	Period:		2022-2042 (Mining 2033)			

3Mtpa

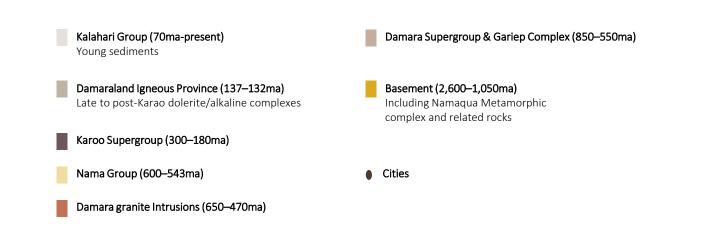
2.1Moz

101Kozpa

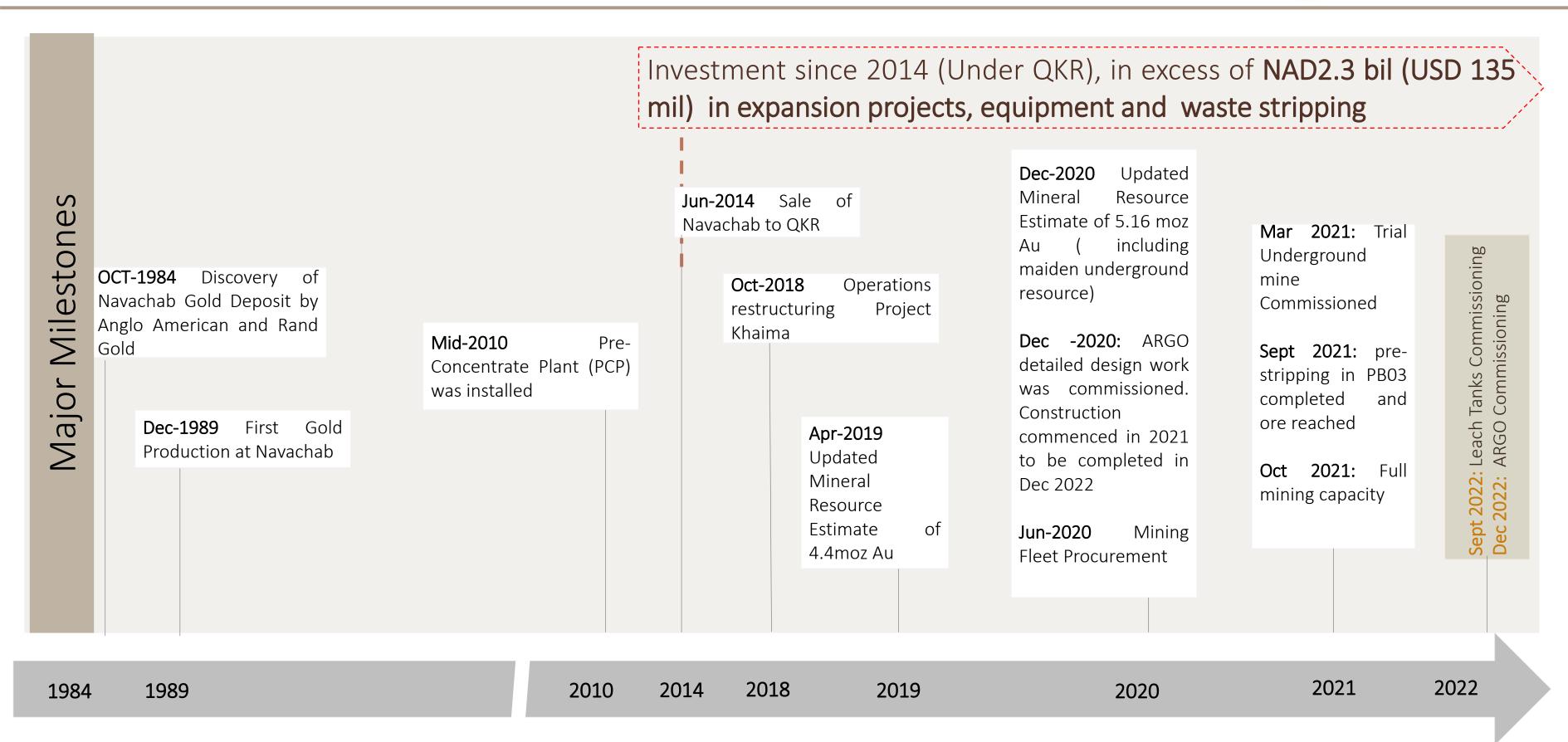
US\$876/oz

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	Opuwo	Congo Craton				
Otjikoto Gold Mine	Tages Ball	Northern Foreland	Tsumeb Southern Central	200		
Ondundo Gold Deposit Twin Hills		mern Zone	Jiwarongo	-		Damara Belt
Deposit Navachab Gold Mine	Swakopmund	Jornher Control Env	1910	d		
GOIG WITHE	Walvis Bay		Mariental		Rehoboth Claims	4
Angola Kaoko Congo craton belt	Nami(b)	_ Kalahari (Craton			
Damara Bell Damara Bell Kalahal Craton	swana					

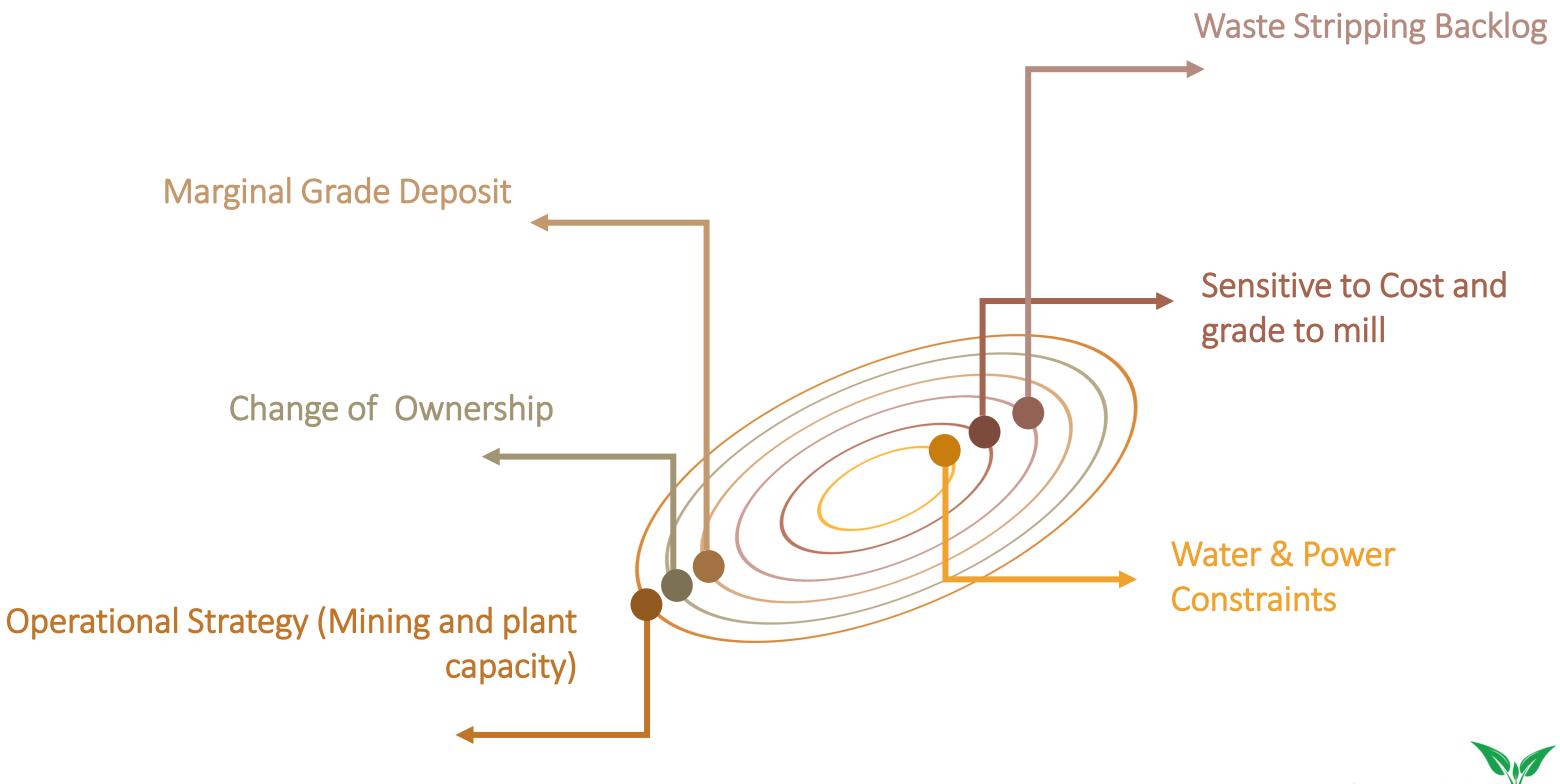
Navachab is located in Namibia's highly prospective Damara Belt











Restructuring exercise



OPERATIONS REDESIGN THROUGH - PROJECT KHAIMA PILLARS

Focus on Core Business Improve Productivity Reduce costs/expenditure

Identify cash generation and value add initiatives

Stakeholder Engagement

- Developed synergies between sections to reduce cost duplication and improve productive use of equipment and human resources
- CIP and PCP
 maintenance strategy
 through pareto
 analysis

- Increase mining rates from 15-16mln tpa to 30 mln tpa
- Increase mill throughput from 1.4 to 1.6/1.7 mln tonnes per annum
- Additional milling Argo mill— aligns mining capacity with CIP capacity debottlenecking milling circuit
- PCP productivity improvement projects wet to dry conversion and gyratory crusher

- Transition to owner mining model
- Purchase of new mining fleet- aligns life of fleet to life of mine
- Renegotiate key supplier/ vendor contracts – cyanide, bulk water supply, satellite pit mining
- Tighten expenditure controls

- Exploration on MLs and EPLs
- Trial Underground mine to further investigate feasibility
- Data integrity and Mass balance especially at the PCP improving recovery and metal accounting
- Sampling of historical stockpiles
- Plant expansion project
- Leach expansion project

- Establishment of inhouse Khaima project team
- Buy in from all employees
- Buy in from Board of Directors
- Buy in from Ministry of Mines and other external stakeholders
- Sale of Company houses



"Expansions through the Pandemic"



KEY STRATEGIC REVIEWS

STRATEGIC OUTCOMES





- Whittle Enterprise Optimisation
- Contract Vs Owner mining model review
- OEM trade-off study between Hitachi, CAT and Komatsu
- Independent Reserve and Resource audit (JORC 2012)

- Owner Mining
- Increase mining capacity
- Mining fleet acquisition
- Technology investment
- Lower unit mining cost
- Increase in resource and reserve

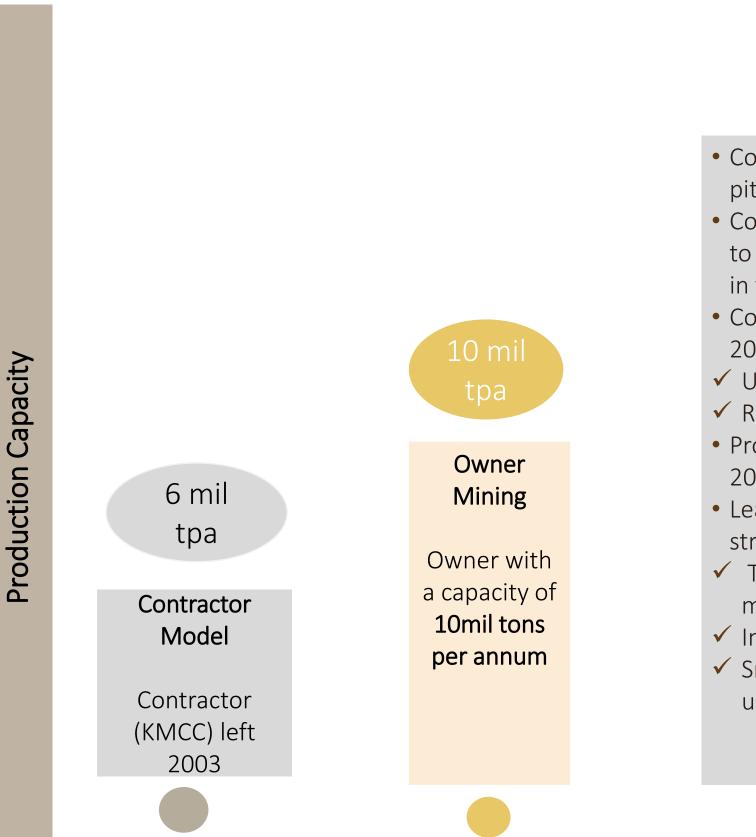
"To date a total of circa N\$ 600 mil worth of fleet and technology investment spent on mining operations with a further circa N\$ 200 mil to be spend on acquisition of drills and additional fleet requirements. Fleet of 4x New excavators and 21 trucks delivered."

GROWTH THROUGH EXPANSION

- Mining Production ramp up started in July 2020 and AN13 reached ore in September 2021 and total mining volumes ramped up to run modelled capacity in Oct 2021
- Increase mining rates from 15 -18 mln tpa to 30 mln tpa
- Full capacity comprising of **4x excavators, 21 trucks** and support equipment
- Employment of an additional 195
 mining staff, artisans and operators

1989 - 2003





16 - 18mil tpa

- Contractor mining for satellite pits
- Contractor mining increased to supplement owner mining in the main pit
- Contract mining terminated in 2017 due to;
- ✓ Unsustainable cost base
- ✓ Review mining model
- Project Khaima launched in 2018
- Leading to a change in mining strategy,
- ✓ Transitioning to owner mining
- ✓ Increase mining capacity
- ✓ Smaller Satellite pit mining using indigenous

2012 - 2018

- Acquisition of mining fleet from Komatsu OEM provider
- Ramp up to 27-30 mil tpa
- 30mil tpa BCMs capacity to be maintained to LOM (2033)
- Waste mining in the main pit
- Access to ROM ore in Q3 of 2021
- Successful mining of AN16 satellite pit

Looking ahead

- Conceptual study for underground mine including detailed designs and schedule completed
- Trial underground Mine began in Mar 2021 and will be completed in Sep 2022
- Ongoing feasibility for full underground mine
- Near mine exploration

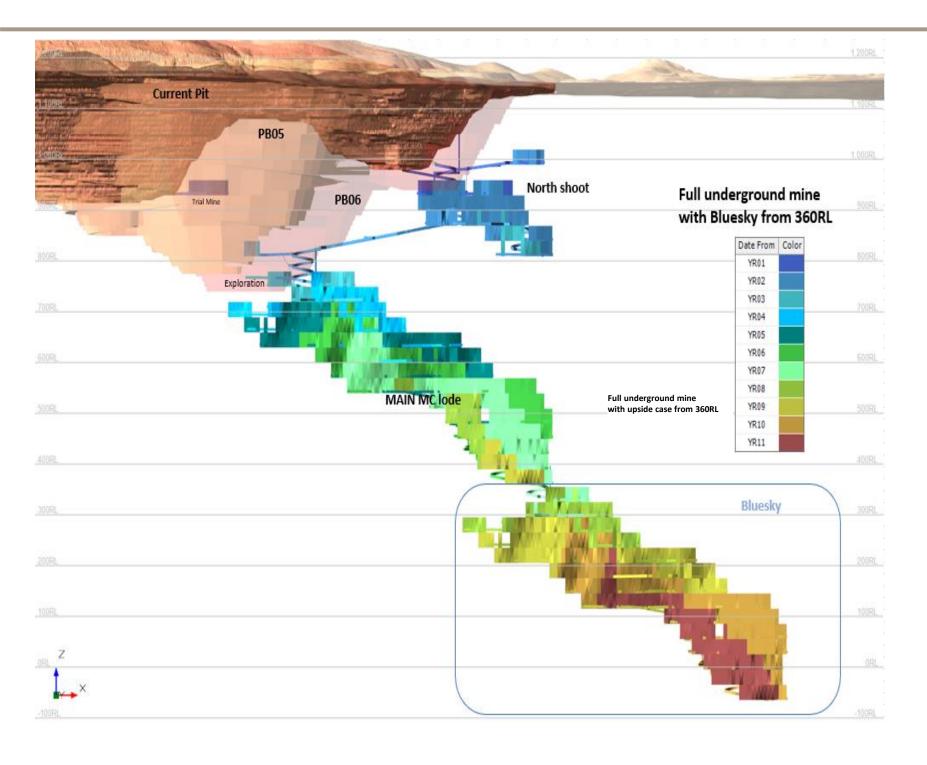


2019 - LOM

2004 - 2012

UNDERGROUND





- Large Resource base
- Open pit vs Underground trade off
- Conceptual study completed in 20202 Trial Mine recommended
- Geotech assessment (support, pillar size, etc.), ore recovery and dilution, hydrogeology, mining rates, costs etc.
- MC lode extends downplunge and is open ended at depth –
 high grade 20-30m wide
- Contractor appointed in January 2021. Trial Mine to be completed in September 2022
- Feasibility Study to be completed potential to increase life of mine and yearly production.
- Exploration drilling will be key shoot.

A total of N\$ 200 mil of investment into underground trial project.



KEY STRATEGIC REVIEWS



- Processing capacities historically misaligned with mining capacity and the capability of the orebody
- Optimisation studies indicated the need to increase processing capacity
- Investigated several technologies to expand processing capacity, with key consideration being power, water and unit cost.

STRATEGIC OUTCOMES

- Feasibility study indicated that mill incremental throughput of 160tph was feasible, expanding total milling capacity to 3.0mil tpa from 1.7mil tpa
- This require expansion of the leach capacity - additional 6x 1,300m³ leach tanks doubling retention time and improve recoveries by 1%-4% based on material type
- ARGO & HIG milling technology found suitable due to water and power efficiency – extensive testwork completed
- Innovative milling technology, first worldwide application in gold processing
- Lowers operating unit cost

GROWTH THROUGH EXPANSION

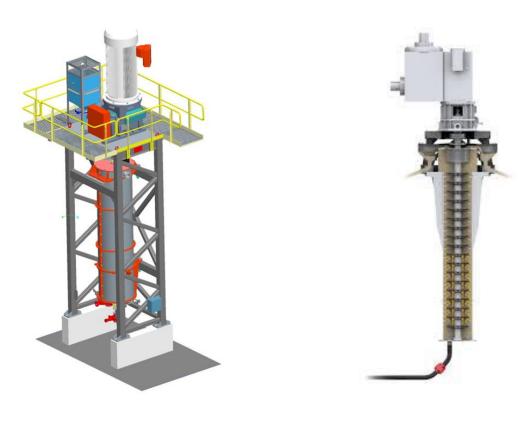
- ARGO increases total milling capacity to 3mtpa
- Milling capacity expansion will be aligned to the higher mining rates, allowing SAG mill TO process the highest grade ore sourced directly from the pit while the ARGO mill would process concentrate from the PCP circuit
- ARGO project will result in decrease in unit processing costs and uplift in recoveries
- Additional staff of 87
- Commissioning in Dec 2022
- Over 300 jobs during Construction phase

A total of N\$ 880 mil of investment into ARGO and leach expansion.

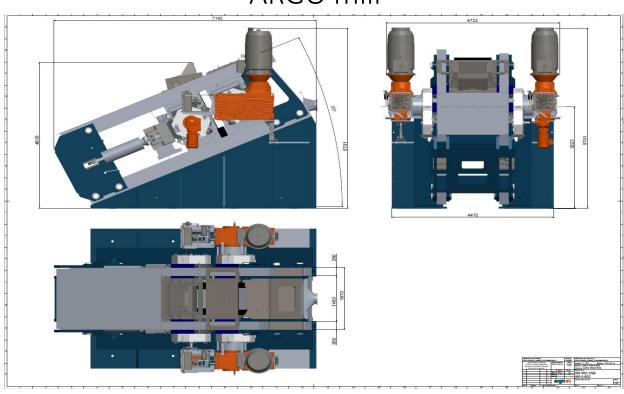


- ARGO Mill is a new generation High Pressure Grinding Rolls (HPGR) mill
- Material in the high intensity grinding (HIG) mill is fed from the bottom by a feed pump
- Particles rise up the HIG mill cylinder where they are ground in a media containing ceramic balls and grinding discs
- As the material becomes finer it rises through the mill chamber, the rise in velocity can be adjusted to match the required size
- ARGO and HIG mill plants product will be fed together with the CIP SAG mill product to the Leach section
- Allows PCP plant concentrate and SAG mill pebbles to be redirected from the SAG mill to the ARGO and HIG mill, thus only higher grade ROM material is fed through the SAG mill

HIG mill



ARGO mill







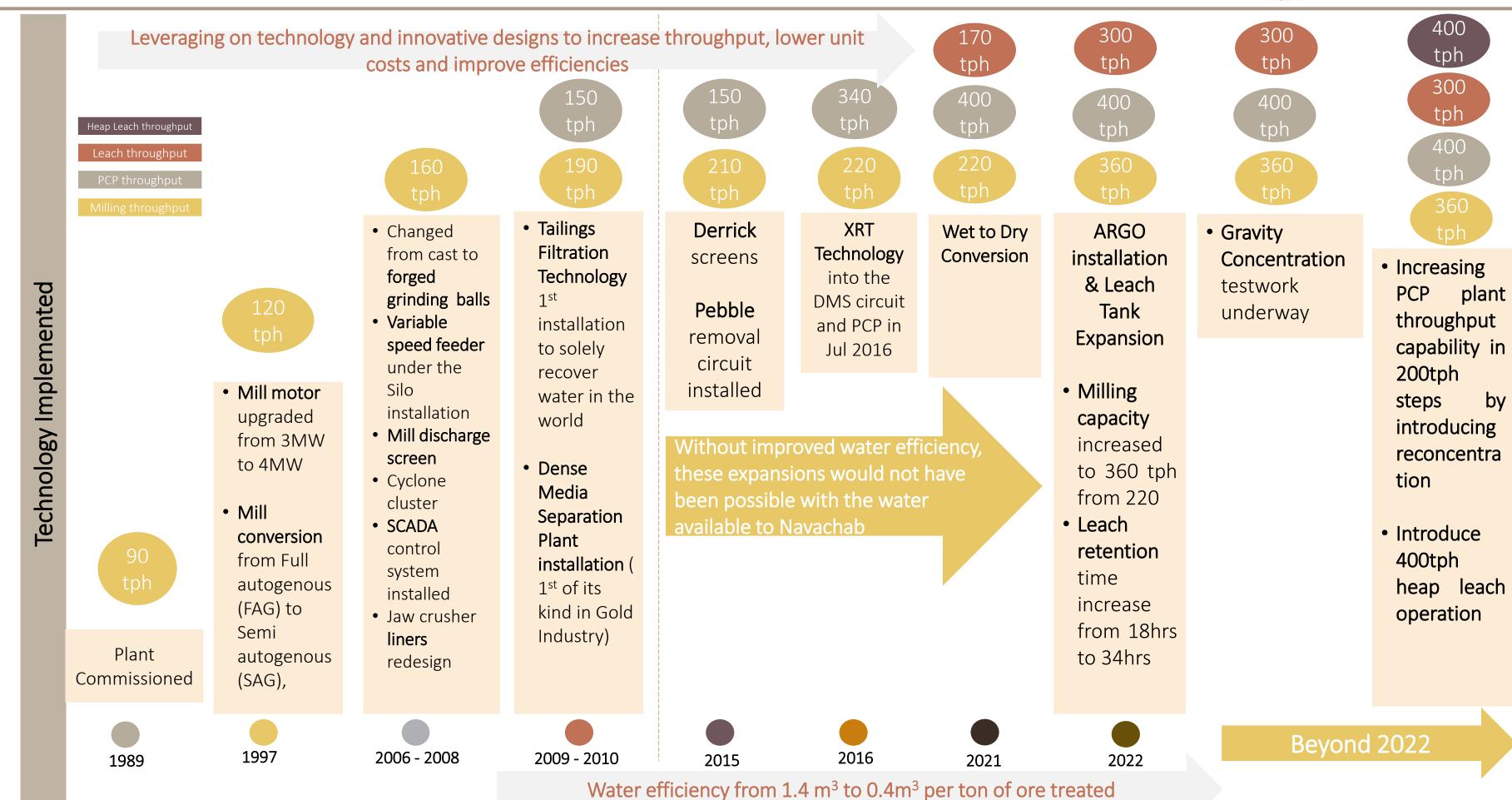
ARGO Site Dec 2021



ARGO Site Aug 2022

PROCESSING PLANT TECHNOLOGY CHANGES TIMELINES

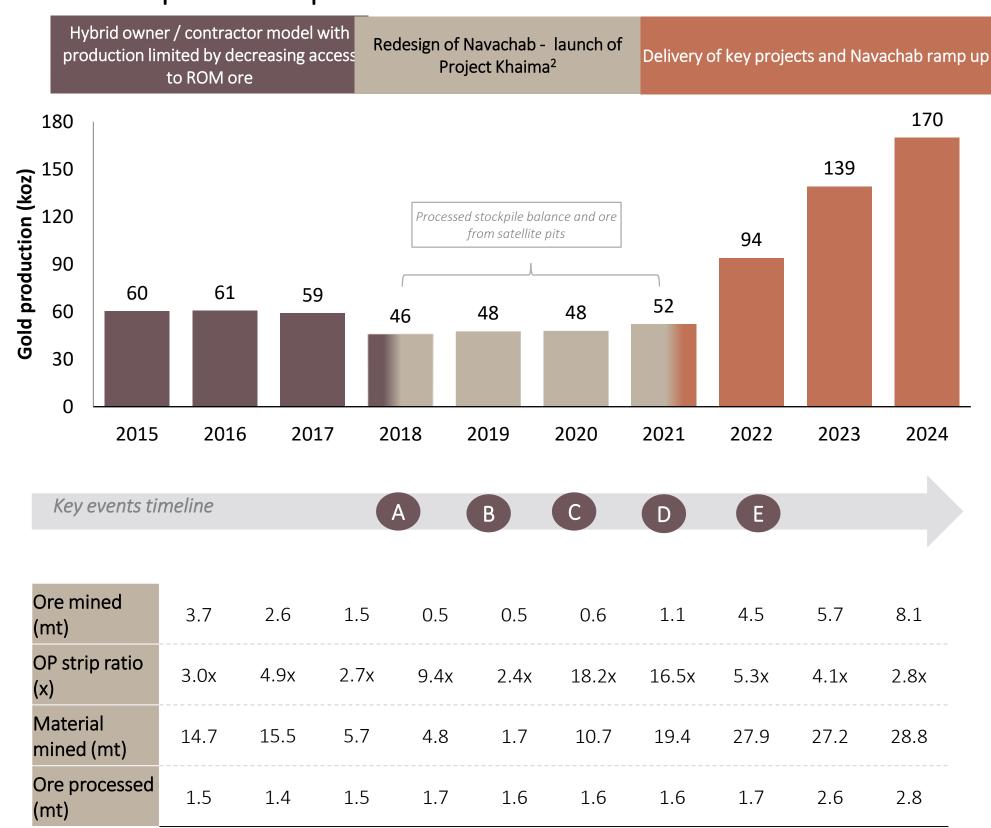




EXPANSIONs VALUE ADDITION (Ounce Production Profile)



Navachab production profile



- Oct-2018: All mining activities at the main pit ("AN13") ceased following decision to redesign mine plan, incorporating: move to owner-operator model at AN13, implementation of Project Khaima, processing capacity expansion, underground operation at AN13
- Sep-2019: Waste mining restarted at Pushback 3 ("PB3") of AN13 pit following approval of new mining work programme (contained within the new LOM plan) by Ministry. Initial stripping utilised old brownfield fleet
- Aug-2020: Increase in mining rates on PB3 with the delivery of new fleet and rental fleet leading to increased stripping
- 2021: Access to ROM ore from main pit AN13 from Sep-2021
- LOM 2022 Full production ramp —up of mining operation,

 ARGO mill to initial steady state production target of 125tph

Beyond 2022: ARGO mill is fully ramped up to target production rate of 160tph, overall mine operating capacity increases from 1.7mtpa (pre - ARGO) to 3.0mtpa and underground ROM ore contribution begins



COVID-19 Pandemic Support

- Quarantine Facility approved by MoHSS, open to employees and public
- Water supply marginalized communities
- PPE for medical personnel, front line workers like police and in schools
- Oxygen supply
- Ventilators
- Hospital repair and refurbishments

Post COVID-19 Pandemic Support

- Water supply (marginalized communities – countrywide)
- Schools upgrade new classrooms, chairs, desks, buildings renovations and repairs
- Sports promotion (Governors Cup, Half marathon, intermine games)
- Community Garden Project

Community Sustainability

- House 2 Home Project
- Support to Local Schools refurbishment
- Mortuary Otjimbingwe
- NAMPOL Vehicle maintenance
- Township electrification and sewage services

Collaborative Local Development

- Medical Health Centre
- Community Garden
- SME start-up Capital
- AGRI Park Project









We rise by rising others



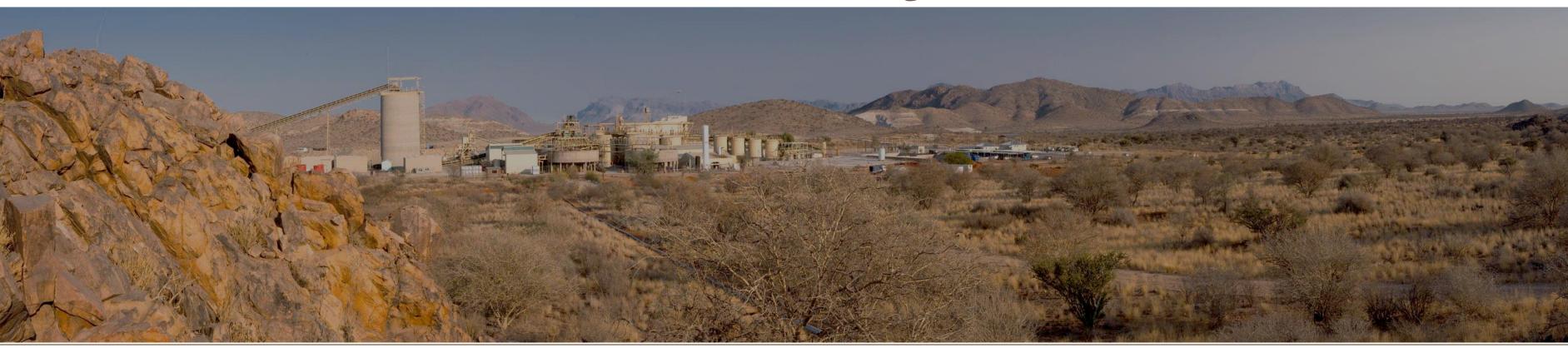








Thank you



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