

# Century In-situ Development Update: Major Milestone Achieved with All Environmental Approvals in Place Optimisation Study Enhances Economics for Silver King & East Fault Block

## **Highlights:**

- Optimisation study delivers highly attractive economics and improved production profile (incremental to current tailings operations):
  - o Base case (analyst consensus pricing): Pre-tax NPV<sub>8</sub> A\$226M, IRR 91%, payback 2.2 years<sup>1</sup>
  - Spot case (current pricing):
     Pre-tax NPV<sub>8</sub> A\$246M, IRR 101%, payback 2.1 years<sup>2</sup>
  - o Average lead metal (in-concentrate) production of 36,000tpa, containing 1,070koz pa silver (9% increase)
  - o Average zinc metal (in-concentrate) production output 30,500tpa (39% increase)
  - o Improved overall site operating costs to C1 US\$0.67/lb (~26% reduction verses tailings only operations³) and AISC of US\$0.90/lb (~20% reduction verses tailings only operations³)
  - Initial in-situ mine life (4 years) based off only 24% of current in-situ Mineral Resources at Century, with mine life targeted to be maintained and potentially increased via continued conversion of known Mineral Resources to Ore Reserves both at surface and down dip of existing in-situ deposits

## In-situ project execution developments:

- o Major advance in project development with all environmental approvals now in place
- Long lead items ordered to maintain critical path, including ball mill construction (~86% complete)
- o Initial underground mining equipment secured, with delivery times to suit schedule requirements
- GR Engineering Services Limited (GRES ASX:GNG) have completed the Front-End Engineering and Design (FEED), progressing to execution of engineering, procurement, and construction (EPC) contract
- o Operational readiness well advanced with focus on underground mining teams, systems and processes

## Optimisation Study key changes from the original In-Situ Feasibility Study:

- o Metallurgical improvements and flow sheet modifications leading to increased metal production
- o Improvements to lead concentrate rheology and pipeline modelling reduce lead losses
- o Grid power supply (previously diesel generation), reduce costs and carbon intensity
- Pre-production capex estimate increased to A\$78.1m (from A\$66.7m), accounting predominantly for additional lead handling equipment within the process plant and general inflationary pressure
- Capex to be invested over ~16-months of development period
- o Updated consensus metal prices and macroeconomic inputs

#### Next steps for in-situ development:

- o Execution of EPC contract with GRES for process plant upgrades
- o Ongoing value optimisation, operational readiness and additional long lead item procurement
- o Internal approval processes and finalisation of debt financing arrangements
- Final Investment Decision (FID) to follow internal and senior debt-finance approvals and debt financing completion targeted for H2 CY2022 with first production in H2 CY2023

<sup>&</sup>lt;sup>1</sup> Analyst consensus long term metal prices (Consensus Economics April 2022): Zn: US\$3,500/t, Pb: US\$2,205/t, Ag: US\$25/oz, 0.75 AUD:USD

<sup>&</sup>lt;sup>2</sup> Current spot metal prices: Zn: US\$3,493/t, Pb: US\$2,044/t, Ag: US\$20.95/oz, 0.69 AUD:USD (LME/Comex 16/05/2022)

<sup>3</sup> Comparing projected tailings and in-situ operations to last 12 months tailings only cost performance (C1 US\$0.90/lb, AISC US\$1.13/lb)

#### **Cautionary Statements**

As the Optimisation Study utilises a portion of Inferred Resources, the ASX Listing Rules require a cautionary statement is included in this announcement. The Optimisation Study referred to in this announcement is an update to the original In-situ Feasibility Study of the potential of combining the Company's in-situ resources with the current tailings mining operation at the Century Mine released to ASX on 15 September 2021.

Like the In-situ Feasibility Study, the Optimisation Study includes a proportion (14%) of Inferred Resources. There is a lower level of geological confidence associated with Inferred Resources and there is no certainty that further exploration work will result in the determination of Indicated Resources or that the production target will be realised. The Company has concluded however, that it has reasonable grounds for disclosing a mining and production target which includes 14% of Inferred Mineral Resources as the Inferred Resources used in the Optimisation Study are not critical to the economic viability of the combined operations. Further evaluation work and appropriate studies are required before the Company will be in a position to estimate additional Ore Reserves to support a longer mine life.

New Century believes that the production target, forecast financial information derived from that target, and other forward-looking statements included in this announcement are based on reasonable grounds. However, neither the Company nor any other person makes or gives any representation, assurance or guarantee that the production target or expected outcomes reflected in this announcement in relation to the production target will ultimately be achieved.

Investors should note that the Company believes the commodity prices, AUD:USD exchange rate and other variables that have been assumed to estimate the potential revenues, cash flows and other financial information are based on reasonable grounds as at the date of this announcement. However, actual commodity prices, exchange rates and other variables may differ materially over the contemplated mine life and, accordingly, the potential revenue, cash flow figures and other financial information provided in this announcement should be considered as an estimate only that may differ materially from actual results. Accordingly, the Company cautions investors from relying on the forecast information in this announcement and investors should not make any investment decisions based solely on the results.

Several key steps need to be completed to achieve the expansion of production at the Century Mine. Many of those steps are referred to in the original In-situ Feasibility Study announcement and this announcement. Investors should note that if there are any delays associated with completing those steps, or completion of the steps does not yield the expected results, the actual revenue and cash flow figures may differ materially from the Optimisation Study results presented in this announcement.

To achieve the range of outcomes indicated in this announcement, funding, including working capital, in the order of A\$104 million will likely be required. The Company is generating cashflow from its existing tailings operations and has existing cash reserves. Any start-up capital requirement is anticipated to be covered by the cash flow generation of the existing tailings operations and by new financing facilities, however investors should note there is no certainty that cashflow available from existing operations will be sufficient, or that the Company will be able to raise any additional financing facilities if needed, including senior debt financing approvals. In this event, it is also possible that any additional funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares.

New Century Resources Limited (**New Century** or the **Company**) (**ASX: NCZ**) is pleased to provide an update on the progress of development of in-situ deposits Silver King and East Fault Block at the Century Mine in Queensland, Australia (the **Project**).

Commenting on developments to date, New Century Managing Director Patrick Walta said:

"The New Century team is pleased to have achieved a major milestone toward development of Silver King and East Fault Block through obtaining all necessary environmental approvals.

The Optimisation Study has also reinforced the highly value-accretive potential of the in-situ development at Century, materially expanding the production profile and life of asset while reducing site-wide unit costs. The results underscore the significant near-term opportunity available via the development of Silver King and East Fault Block that will open up the avenue to continue the utilisation of approximately A\$2 billion previously invested in infrastructure at Century to 2030 and beyond.

We look forward to updating shareholders on further progress in the coming months as we progress toward completion of debt financing and a final investment decision."

## **In-Situ Optimisation Study Summary**

Table 1 provides a summary of the key parameters and significant changes between the two studies (see In-situ Feasibility Study released to ASX in September 2021 for in-depth details of the Project).

Item	Units	September 2021 FS	Optimisation Study	
Base Case Economic Assumptions				
Zinc Price	US\$/t	2,535	3,500	
Lead Price	US\$/t	2,205	2,205	
Silver Price	US\$/oz	25.0	25.0	
Exchange Rate	US\$:A\$	0.70	0.75	
Project Cash Flow				
Pre-Production Capex	A\$m	66.7	78.1	
Sustaining Costs & Rehabilitation	A\$m	14.3	11.5	
Financial Metrics				
Pre-tax NPV <sub>8</sub>	A\$m	212	226	
Pre-tax IRR	%	102%	91%	
Pre-tax Payback Period	Yrs	2.2	2.2	

Table 1: Key parameters and changes vs the September 2021 In-situ Feasibility Study

A complete summary of all Optimisation Study physical and financials is available in Appendix 1 of this announcement. Further details on capital and operating cost estimates are outlined below.

## **In-Situ Optimisation Study Discussion**

## **Capital Cost Estimate**

The Table below provides an update on estimated capital costs for the development of in-situ resources at the Century Mine including working capital:

Capital Item	AUDm	
Mining Surface Infrastructure & Equipment	12.6	
Underground Development (to first ore)	8.1	
Concentrator Upgrade (addition / refurbishment of lead circuit)	46.7	
Pipeline & Port Upgrade (refurbishment of lead circuit)	5.3	
Owners costs	5.4	
Pre-production capex	78.1	
Ore Stockpile Inventory Increase (50kt to 95kt ore at ~10% Zn + Pb)	14.3	
Estimated working capital	11.9	
Estimated maximum cash draw down	104.2	

Table 2: Summary of capital estimate breakdown

Previous pre-production capex estimate (September 2021) was lower at A\$66.7 million. The main aspects of the Project leading to cost increases are as follows:

- Additional lead circuit infrastructure, improving operating efficiency;
- Price escalation in materials and consumables required to execute the Project; and
- Increase in initial ore stockpile from 50kt to 95kt to allow a smooth processing ramp-up.

Industry-wide capital cost pressure is evident in the results of the Optimisation Study, which have been factored into the financial model and controls are being established to limit the effect on Project execution. Where prudent, the Company is seeking to lock in contractual commitments to minimise the risks of capital cost inflation.

#### **Operating Cost Estimate**

The Table below provides an update on operating cost estimates for in-situ operations at Century:

Item	US\$/lb Zn payable basis
Mining	0.60
Processing	0.33
Site G&A	0.13
Transport	0.09
Treatment Charges	0.40
C1 Cost (excl Lead & Silver Credits)	1.56
Lead Credit	-1.35
Silver Credit	-0.44
C1 Cost (incl. Lead & Silver Credits)	-0.23
Royalties	0.21
Corporate Costs	0.01
Sustaining Capex	0.07
All-in Sustaining Cost (AISC)	0.06

Table 3: Optimisation Study life of mine unit operating costs (in-situ only) – payable metal basis

In-situ operating costs on a unit basis remain extremely robust despite moderate cost increase assumptions to consumables compared to the original In-situ Feasibility Study in September 2021. In addition, marginally lower total lead production (by-product credit) has a negative effect on projected unit costs of the operation.

The addition of in-situ operations is projected to improve overall site operating costs to C1 US\$0.67/lb (~26% reduction verses tailings only) and AISC of US\$0.90/lb (~20% reduction verses tailings only).

#### Metallurgy

The Optimisation Study has identified several areas of increased operational flexibility within the in-situ process flowsheet at the Century Mine. These include:

- (a) the ability to have the lead cleaner tails reporting to the lead rougher feed; and
- (b) the lead cleaner circuit changing from one larger cell to multiple stages (two banks of cells comprising two 1.5 m³ cells in each bank).

These changes have collectively improved the expected performance of the lead circuit.

In addition, flexibility has been introduced in the zinc circuit through the ability to send the zinc rougher/scavenger concentrate to the head of the existing Cleaner 3 feed, bypassing the ultra-fine milling and earlier stages of the cleaning circuit, thereby improving the zinc recovery performance.

Finalisation of the lead concentrate regrind circuit, some additional rheology test work and in-depth analysis of historical lead pumping data has allowed an improvement in assumed lead losses to zinc concentrate in the pipeline operations.

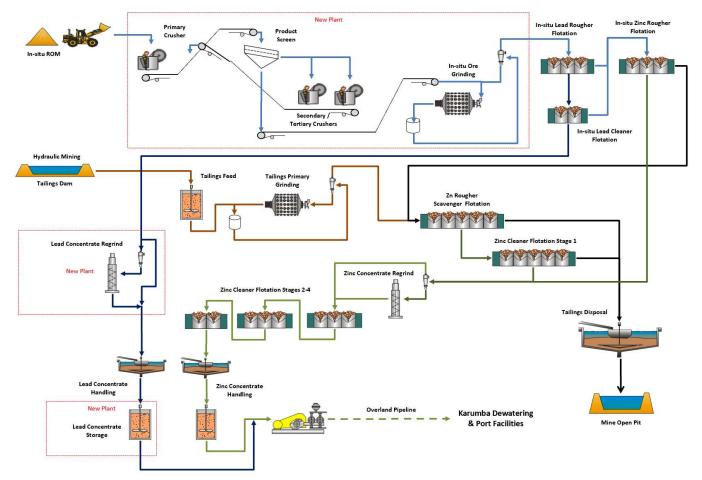


Figure 1: Processing plant flowsheet with inclusion of in-situ ore

#### **Power**

Power supply optimisation activities have delivered benefits by sourcing supply for the incremental demand of the processing plant from the Mt Isa grid supply (diesel generation was previously considered in the September 2021 In-situ Feasibility Study). The Mt Isa Power Network is supplied from Combined Cycle Gas Turbines, lowering both the input cost and the carbon dioxide intensity of the Project. Further investigations are underway into the possibility of introducing renewable power generation supply.

#### Water

Water requirements can be adequately met with existing supply. Hydraulic mining will continue to use water sourced from the Evaporation Dam, recycled from the processing plant and the original Century pit.

The groundwater supply infrastructure for Century Mine comprises of the Eastern and Western Bore Fields. Water extracted from these bores has historically supplemented the process plant requirements and it is forecast that both Bore Fields and the in-pit lake have sufficient capacity to meet water demands post implementation of In-situ processing as the Dam water is drawn down as part of the operating plan.

#### **Other Site Infrastructure**

All other site infrastructure, including the airport, accommodation village, administration and project buildings, on-site laboratory, and maintenance warehouses require only minor works to meet the peak demands of in-situ mining operations.

#### **Zinc and Lead Concentrate Marketing**

The zinc concentrate produced by the combined operations at Century is expected to contain on average 48% zinc and 100-160g/t silver and is proposed to be sold into existing offtake contracts.

The lead concentrate produced by the combined operations is expected to contain on average 65-70% lead and 500-600g/t silver. Lead offtake tendering is yet to be undertaken, however based on the projected product quality and market demand, no issues are expected in achieving sale of 100% of production.

The payability and treatment charge assumptions used by New Century are based on the benchmarks and actual costs from off-takers and are in line with normal terms available in the market:

- Zinc concentrate: Zinc payable 85% or minimum deduction of 8 units, Silver payable: deduct 3oz per tonne and pay 70% of balance; and
- Lead concentrate: Lead payable 95% or minimum deduction of 3 units, Silver payable: deduct 1.6oz per tonne and pay 95% of balance.

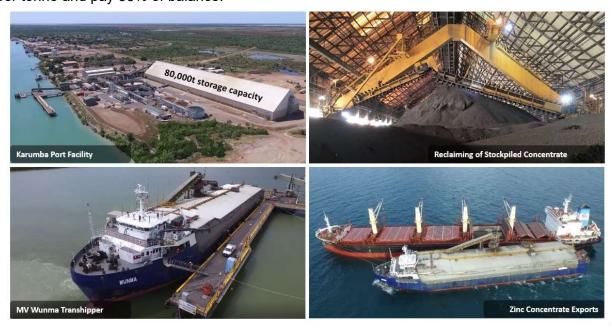


Figure 2: Existing product infrastructure at Karumba Port Facility

## **Long Lead Procurement Strategy**

Project critical path is the construction, delivery, and installation of the new 1Mtpa ball mill. The ball mill procurement was committed to in early October 2021, under a fixed-price contract, with construction currently ~86% complete. GRES is managing all aspects of its design, construction QA/QC, delivery, installation and commissioning.



Figure 3: Fine ore bin & ball mill grinding circuit layout

Other long lead items have been ordered as necessary to maintain the critical path. The Company's underground equipment supply analysis has demonstrated that a mobile fleet acquired through hire-purchase arrangements is the best option for the Silver King underground mine. Queensland Mining Rebuild Centre (QMRC) has been engaged to provide the initial underground fleet from its Queensland workshop facilities.



Figure 4: Sandvik DD421 Development Drill in the final stages of full rebuild

## **Human Resourcing Strategy**

In conjunction with the equipment supply strategy, a contractor versus owner operator study has been completed with a focus on the ability to secure a safe and skilled operational workforce. The Optimisation Study revealed that an owner operator strategy best delivers the required outcomes.

In line with this decision, key personnel have commenced operational readiness tasks following appointment and onboarding. A detailed human resourcing strategy has been developed to ensure success sourcing the required talent within the constraints of a tight employment market.

The initial Project execution owner's team has been engaged and is working in conjunction with key contract partners to complete early works and operational readiness tasks to enable a smooth transition to execution. This work includes overall Project optimisation, updating the execution cost budgets, refining the execution schedule and monitoring the Project's critical path.

## Front End Engineering Design (FEED)

Completion of numerous trade-off studies and flow sheet improvements has resulted in a refined execution scope of works for the process plant modifications. The advanced engineering and design work, and associated EPC contract, is well progressed with GRES. Ongoing work to ensure continued value engineering and further de-risking of the execution phase is underway.

The layout of new and existing infrastructure requiring refurbishment within the existing tailings processing facility can be seen in Figure 5 below.

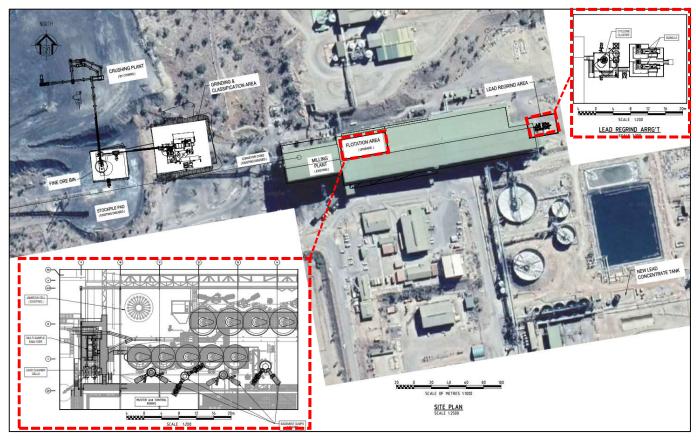


Figure 5: Crush and Grinding Circuit 3D schematic located proximal to Century Processing Plant

## **Mining and Geology**

The Optimisation Study has confirmed the Company's understanding of the mining and geological aspects of the Project, with the next level of execution design and development and production scheduling now complete. The Mineral Resources and Ore Reserves for the in-situ resources currently included in the Project production schedule are:

Initial in-situ mine life (4 years) based off only 24% of current Mineral Resources at the Century Mine, with mine life targeted to be maintained and potentially increased via continued conversion of known Mineral Resources to Ore Reserves both at surface and down dip of existing in-situ deposits.

- Ore Reserves for Silver King and East Fault Block:
   2.5Mt @ 5.3% Pb (133kt), 5.6% Zn (140kt), 68g/t Ag (5.4Moz) (Probable)<sup>3</sup>
- Mineral Resources for Silver King and East Fault Block:
   4.4Mt @ 4.8% Pb (209kt), 5.4% Zn (234kt), 47g/t Ag (6.6Moz) (Meas/Ind/Inf)<sup>4</sup>

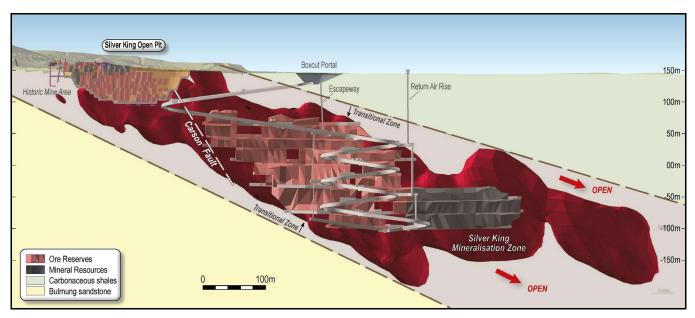


Figure 6: Silver King Life of Mine Plan, 2 (Pink) = Probable Reserve. 3 (Grey) = Inferred Mining Shapes, open at depth

The Silver King deposit is a high-grade vein style deposit located to the south-west of the original open pit and is currently open at depth, with plans for extensional exploration drilling to be completed from underground. Surface exploration work has highlighted the extension potential for Silver King with an identified prospective Silver King vein repeat (to the south) and a splay off the main vein (to the north-west)<sup>5</sup>.

The East Fault Block deposit is a pod of the original Century ore deposit and is located on the north-west corner of the ROM pad.

While not included in the Optimisation Study plant feed, there are two additional identified Mineral Resources at Century which will form the basis of potential future mine life extension:

<sup>&</sup>lt;sup>4</sup> See In-situ Feasibility Study announcement (<u>released to ASX in September 2021</u>) for further details on the Mineral Resources and Ore Reserves for the Silver King and East Fault Block deposits.

<sup>&</sup>lt;sup>5</sup> See ASX announcement dated 07 June 2021 for further details on Silver King drilling and resource definition program.

- The **South Block deposit** was the final cutback of the original 'Big Zinc' deposit and was never mined by the previous owners. The Company is focused on investigating mining methods for South Block development that will ensure the long-term stability of Magazine Hill.
- The Watson's Lode deposit<sup>6</sup> is located on EPM 10544 surrounding the Century mining leases and is approximately 10km from the existing Century processing plant. Watson's Lode is a vein-style system, consisting of predominately epithermal quartz carbonate breccias with varying contents of sphalerite, galena, chalcopyrite, pyrite and siderite. Additional drilling aimed at increasing ore body confidence and expanding this deposit is scheduled over the course of 2022.

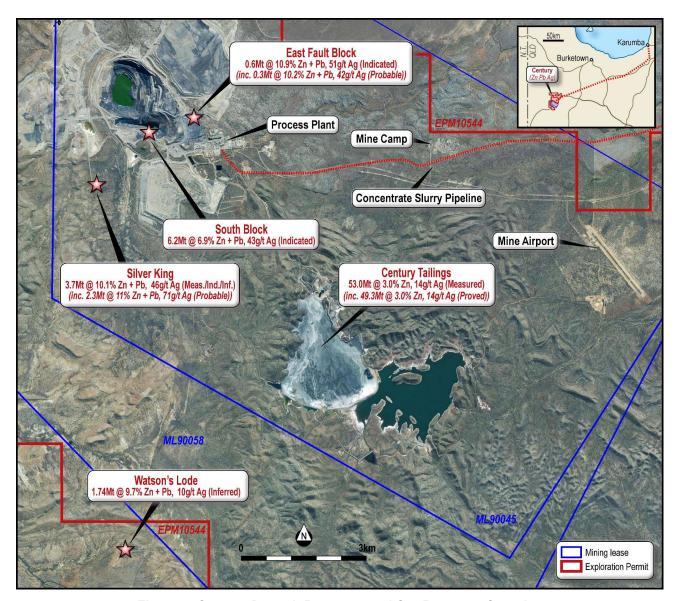


Figure 7: Century Deposit Resource and Ore Reserves Overview

<sup>&</sup>lt;sup>6</sup> See ASX announcement dated 02 September 2021 for further details on the maiden Inferred Mineral Resource for Watson's Lode.

With study and project development work progressing positively, New Century looks forward to providing further updates to stakeholders over the coming months in relation to this exciting mine life extension Project at Century.

## This announcement is approved for release by the Board of New Century.

For further information about New Century visit <a href="https://www.newcenturyresources.com">www.newcenturyresources.com</a> or contact:

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#### **Competent Persons Statement – Mineral Resources**

The information in this announcement that relates to Mineral Resources for:

- the Silver King deposit is extracted from a report titled 'Feasibility Study Demonstrates Compelling Value Proposition for In-situ Resource Development at Century' which was released to ASX on 15 September 2021 and is available to view at <a href="https://wcsecure.weblink.com.au/pdf/NCZ/0242">https://wcsecure.weblink.com.au/pdf/NCZ/0242</a>
   1544.pdf;
- the East Fault Block deposit is extracted from a report titled 'Century Expansion Study Incorporating In-Situ Resource Development Demonstrates Strong Value Add Potential' which was released to the ASX on 25 June 2019 and is available to view at <a href="https://wcsecure.weblink.com.au/pdf/NCZ/02117094.pdf">https://wcsecure.weblink.com.au/pdf/NCZ/02117094.pdf</a>;
- the South Block deposit is extracted from a report titled 'South Block Resource Provides Significant
  Potential for Century Mine Life Extension and Production Increase' which was released to the ASX
  on 15 January 2018 and is available to view at <a href="https://wcsecure.weblink.com.au/pdf/NCZ/01941143.pdf">https://wcsecure.weblink.com.au/pdf/NCZ/01941143.pdf</a>; and
- the Watson's Lode deposit is extracted from a report titled 'Century Exploration, Watson's Lode Resource Definition and In-Situ Feasibility Study Update' which was released to the ASX on 2 September 2021 and is available to view at <a href="https://wcsecure.weblink.com.au/pdf/NCZ/02416901.pdf">https://wcsecure.weblink.com.au/pdf/NCZ/02416901.pdf</a>.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company 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.

#### **Competent Persons Statement – Ore Reserves**

The information in this announcement that relates to the Ore Reserves at the Century Tailings, East Fault Block and Silver King deposits is extracted from a report titled 'Feasibility Study Demonstrates Compelling Value Proposition for In-situ Resource Development at Century' which was released to ASX on 15 September 2021 and is available to view at <a href="https://wcsecure.weblink.com.au/pdf/NCZ/02421544.pdf">https://wcsecure.weblink.com.au/pdf/NCZ/02421544.pdf</a>.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

## Appendix 1 – Summary of project physical and financials

Metric	Year 0	Year 1	Year 2	Year 3	Year 4
Throughput ktpa	-	608 kt	942 kt	960 kt	394 kt
Head Grade %					
Zinc	-	4.9%	4.4%	6.2%	3.2%
Lead	-	6.2%	5.6%	4.0%	8.5%
Silver	-	75 g/t	48 g/t	57 g/t	105 g/t
Recovery %					
Zinc	-	64%	78%	72%	78%
Lead	-	59%	83%	76%	81%
Silver	-	58%	82%	73%	80%
Concentrate Produced ktpa					
Zinc Concentrate	-	40 kt	67 kt	90 kt	21 kt
Lead Concentrate	-	33 kt	63 kt	43 kt	40 kt
Product Payable ktpa Metal					
Zinc	-	16 kt	27 kt	36 kt	8 kt
Lead	-	21 kt	42 kt	28 kt	26 kt
Silver	-	693 kOz	925 kOz	926 kOz	927 kOz
Average Metal Price USD					
Zinc	3500	3500	3500	3500	3500
Lead	2205	2205	2205	2205	2205
Silver	25	25	25	25	25
Exchange Rate	0.75	0.75	0.75	0.75	0.75
C1 Cost (AUD M)					
Mining	\$4.51 M	\$33.1 M	\$61.4 M	\$51.0 M	\$3.7 M
Processing	\$0.04 M	\$19.5 M	\$26.3 M	\$23.2 M	\$12.7 M
Pipeline, Port & trans-shipment		\$0.3 M	\$0.4 M	\$0.4 M	\$0.2 M
In-situ G&A	\$3.29 M	\$7.6 M	\$10.9 M	\$10.0 M	\$2.0 M
Port/Freight		\$4.4 M	\$7.9 M	\$8.0 M	\$3.6 M
Treatment Charges		\$18.6 M	\$33.5 M	\$34.8 M	\$15.1 M
Silver Credits		(\$22.5 M)	(\$30.4 M)	(\$29.3 M)	(\$29.0 M)
Royalties		\$7.5 M	\$17.6 M	\$16.7 M	\$12.4 M
NCR Corporate Overhead*	\$0.0 M				
Total C1 Costs	\$7.84 M	\$68.4 M	\$127.5 M	\$114.9 M	\$20.6 M
AISC Cost (AUD M)	\$16.34 M	\$88.6 M	\$130.9 M	\$117.6 M	\$38.5 M
Closure Costs					\$0.4 M

<sup>\*</sup> Note no NCR Corporate Costs transferred to In-situ Project All cost are incremental to site costs