

ASX Announcement/Press Release Zenith Minerals Limited (ASX:ZNC) 17 November 2022

Exceptional Metallurgical Results - Earaheedy Zinc

High Zinc Recoveries and Concentrate Grades from Earaheedy Zinc Joint Venture

Investment Highlights

Metallurgical testwork conducted on samples taken from the Earaheedy Joint Venture Chinook and Tonka Deposits, returns positive results, including:

- High zinc recoveries to 90% in cleaner concentrates.
- Coarse primary grind size of 150 micron.
- Fast flotation kinetics with clean sulphide separation using site water.
- Simple and conventional processing flowsheet recovers a bulk zinc concentrate with metal credits utilising an uncomplicated and lower dosage reagent scheme.
- Zinc concentrate grades to 59% Zn, with no significant deleterious elements.
- Recoveries and concentrate grades from Earaheedy are at the upper end of global benchmarks when compared to current zinc developer / producers.
- Positive metallurgy to be backed by a maiden JORC Mineral Resource Estimate to be brought forward to the first half of 2023.
- For further details refer to RTR ASX Released dated 16-Nov-22 appended to this announcement.
- Earaheedy Zinc Joint Venture partners are Zenith Minerals Limited (Zenith) 25% (free carried to end Bankable Feasibility Study) and Rumble Resources Limited 75%.
- Zenith has proposed that its base metal and gold assets including its share of the Earaheedy Joint Venture will be transferred into a separate ASX-listed company called Mackerel Metals Ltd.

Mackerel Metals Limited

On 3-Nov-22, Zenith announced that its wholly-owned subsidiary, Mackerel Metals Limited ("Mackerel"), had lodged a Prospectus with ASIC on 2-Nov-22 to raise \$6,000,000 via the offer of 20,000,000 new Shares at an issue price of \$0.30 per Share ("Offer") and had sought a listing on the Australian Securities Exchange by way of an initial public offering (IPO). On 9-Nov-22, Mackerel also lodged a Supplementary Prospectus with ASIC in relation to the Offer. The Offer will occur in conjunction with a proposed in-specie distribution of shares in Mackerel to Zenith shareholders (refer to ASX Release 10-Nov-22).

Following completion of the IPO, Mackerel's portfolio of gold and base metal assets will comprise ten projects within eight active project areas including the Earaheedy Zinc Joint

Venture and 100% owned Earaheedy Projects, as well as other assets in Western Australia, Queensland and New South Wales shown in Figure 1. For full details of the Company and its projects refer to the Prospectus and Supplementary Prospectus that is available from Mackerel's website at www.mackerelmetals.com.au.

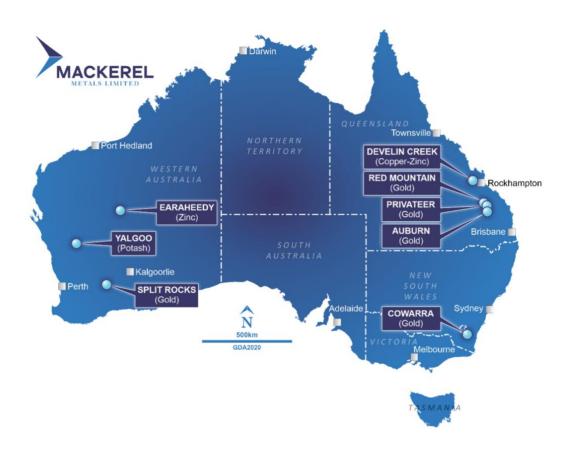


Figure 1: Mackerel Metals' Project Locations in Australia

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Material ASX Releases Previously Released

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.

For further information, please contact:

Zenith Minerals Limited

David Ledger

Executive Chairman P: +61 8 9226 1110

E: info@zenithminerals.com.au

About Zenith Minerals

Zenith Minerals Limited (ASX:ZNC) is an Australian-based battery minerals explorer leveraged to the increasing global demand for metals critical to the production processes of new energy industrial sectors.

The Company currently has three lithium projects all located in Western Australia. Split Rocks, located within the Southern Cross region mid-way between Perth and Kalgoorlie, is now being systematically explored under the terms of the joint venture between Zenith and EV Metals Group (EVM). It covers landholdings of approximately 660km^2 in the Forrestania greenstone belt immediately north of the established Mt Holland lithium deposit. Waratah Well, located approximately 20 km northwest of the regional town of Yalgoo in the Murchison Region holds a lithium-caesium-tantalum pegmatite target with ongoing exploration.

More recently, Zenith acquired a third lithium prospect, the Mt Ida North Project, located approximately 95km west of the regional town of Leonora in WA's Goldfields Region. The Mt Ida North Project and P77/4490 at Split Rocks form part of the Australian Lithium Alliance and agreement between EVM and Zenith whereby EVM and Zenith fund their interest on a 60%:40% basis respectively.

In January 2022, Zenith entered into a joint venture with EVM, a global battery materials and technology company focussed on the production of high purity chemicals and battery materials required in rechargeable batteries for electric vehicles and renewable energy storage. EVM can earn a 60% interest in the lithium rights in these projects, with Zenith retaining a 40% project share, under terms that sees Zenith funded through to bankable feasibility on any of the project developments. Any lithium concentrate produced from these projects will provide critical raw material supply for EVM's Battery Chemical Complex in Yanbu, Saudi Arabia as part of an integrated global supply chain currently being developed by EVM. This will contribute to meeting the growing demand for stable, long-term supplies of critical raw materials, high purity chemicals and cathode active materials. The number of Australian-based lithium/EV metal projects currently in the JV could be further expanded over time if appropriate acquisition opportunities present themselves.

To learn more, please visit www.zenithminerals.com.au

This ASX announcement has been authorised by the Board of Zenith Minerals Limited.

17th November 2022

ASX ANNOUNCEMENT

Exceptional Metallurgical Results High Zinc Recoveries and Concentrate Grades

Highlights

- Outstanding initial flotation test work results from zinc sulphide dominant ores across the Earaheedy Project has resulted in:
 - High zinc recoveries to 90% Zn in cleaner concentrates
 - Coarse primary grind size of 150 micron
 - o Fast flotation kinetics with clean sulphide separation using site water
 - Simple and conventional processing flowsheet recovers a bulk zinc concentrate with metal credits utilising an uncomplicated and lower dosage reagent scheme
 - Zinc concentrate grades to 59% Zn, with no significant deleterious elements, supporting a very marketable product
- Initial metallurgical results backed by fast kinetics at coarse grind sizes support a
 potential simple low Capex and Opex flowsheet for the Earaheedy Zn-Pb Project
- Recoveries and concentrate grades are at the **higher end of global benchmarks** when compared to current zinc developer / producers
- Considerable potential for additional improvements through metallurgical optimisation test work and value add beneficiation studies planned for 2023
- JORC Mineral Resource Estimate to be brought forward to the first half of 2023

Rumble Resources Limited (ASX: RTR) ("Rumble" or "the Company") is pleased to announce the metallurgical results from the initial sighter program focused on the transition/fresh sulphide ores selected from the Chinook and Tonka Prospects at the Earaheedy Project ("Earaheedy" or the "Project"), located 110km northeast of Wiluna, Western Australia.

Shane Sikora, Managing Director of Rumble Resources commented:

"This is an exciting step forward for the project. The metallurgical test work carried out on the zinc sulphide dominant mineralisation has returned exceptional recoveries and grades via a simple and straightforward flotation process delivering a clean and highly marketable bulk concentrate. It compares favourably to current zinc producers and is positioned in the higher end of globally reported benchmarks."

"Furthermore, these recoveries have been achieved at coarse grind sizes with an uncomplicated reagent scheme supporting a simple and conventional process flowsheet that will potentially result in much lower capital and operating costs to those typically observed in many zinc operations of this scale."

"Work continues on the maiden JORC compliant Mineral Resource Estimate (MRE) for the Earaheedy Project for which we are now aiming to announce in the first half of 2023. This maiden MRE, in combination with the excellent metallurgy, open-pittable depths, provincial scale and being located in a Tier 1 mining jurisdiction will assist to establish the Earaheedy Project as a World Class zinc deposit and future producer of this critical futurefacing commodity."



Rumble Resources Ltd

Level 1, 16 Ord Street, West Perth, WA 6005

T +61 8 6555 3980

F +61 8 6555 3981

rumbleresources.com.au

ASX RTR

Executives & Management

Mr Shane Sikora Managing Director

Mr Matthew Banks
Non-executive Director

Mr Michael Smith
Non-executive Director

Mr Geoff Jones
Non-executive Director

Mr Peter Venn Non-executive Director

Mr Brett Keillor Head of Technical

Mr Steven Wood Company Secretary



Metallurgical Testwork Results

The metallurgical test work on the first sighter composites from the Earaheedy Project has been conducted at both IMO Metallurgical Laboratory Services, Perth (IMO) and Auralia Metallurgy, Perth (Auralia) on behalf of Rumble. The work has been mainly focused on the flotation characteristics of the two deposits delineated by drilling at Chinook and Tonka over the past 18 months. The metallurgical studies began on high grade representative samples from two sonic holes drilled approximately 500 metres apart – Composite A. At an early stage this work focused on the various flotation flowsheets which included differential zinc/ lead and bulk flotation. Initial quantitative mineralogical test work outcomes and the increasing zinc to lead ratios (> 4:1 Zn:Pb) reported in drilling during 2022, supported the decision to concentrate efforts on a bulk concentrate flotation scheme. Metallurgical consulting firm Auralia was subsequently engaged to review the initial work performed at IMO and further optimise the bulk flotation flowsheet at coarser primary grind sizes using the Earaheedy site water. Testing at both laboratories provided confidence in the approach and outcomes from the work program and assisted in developing the flowsheet for the subsequent Tonka Prospect composites.

Bulk Concentrate from Zinc Dominant Zn-Pb mineralisation - Exceptional Recovery and Grades

A summary of the most advanced flotation testwork results on Chinook and Tonka composites in Table 1:

nary of the most advanced hotation testwork results on Chinook and Tonka composites in Table 1.							
PROSPE	СТ		CHINOOK	TON	KA		
Composi	te - Hole #	Target	A- EHS001/002	B - EHD019	C- EHD027	Average	Average
Host		Spec	Unconformity	Unconformity	Dolomite	Tonka	Overall
Material '	Туре		Transition/Fresh	Fresh	Fresh	Fresh	Transition/Fresh
Test Nun	nber		AM126-21	FT27	FT25		
Feed Gra	ides						•
Zn	%		3.92	4.72	1.25		
Pb	%		2.33	0.49	0.15		
Rougher	Recoverie	s					
Zn	%		86.1	89.6	96.7	93.2	90.8
Pb	%		63	82.3	82.1	82.2	75.7
Cleaner I	Recoveries	3					
Zn	%		78.6	84.2	89.6	86.9	84.1
Pb	%		41	72	70	70.8	60.8
Cleaner (Concentrat	te Grades	3				
Zn	%	45-55	44.5	58.8	49.6	54.2	51.0
Pb	%		13.7	5.2	4.8	5.0	7.9
Zn+Pb	%		58.3	64.0	54.4	59.2	58.9
Fe	%	1.5-10	7.0	4.2	9.1	6.6	6.8
As	%	<0.2	0.03	0.04	0.10	0.07	0.06
Mg	%	<0.3	0.04	0.03	0.16	0.09	0.07
SiO2	%	<2.5	0.96	2.28	0.43	1.35	1.22

Table 1: Metallurgical Testwork Summary – incl Rougher Recoveries / Cleaner Recoveries and Concentrate Grades

Bulk Concentrate - Benchmarking to other Deposits

Benchmarking of the recovery and grades results against some of the larger scale zinc miners globally (Table 2), highlights the results would currently place Earaheedy in the upper band of zinc producers for both critical parameters.

Company	New Century	Glencore	MMG	MMG	Vedanta Zinc	Teck Resources	Rumble
Project	Century ¹	McArthur River ²	Rosebery ³	Dugald River ³	Gamsberg 4	Red Dog 5	Tonka
Zn Concentrate Grade	48%	47%	54%	50%	50%	55%	54%
Zn Recoveries	51%	N/A	82%	88%	N/A	86%	87%

Table 2: Tonka Earaheedy Zinc Recoveries and Zinc Concentrate vs Global Producers

¹ New Century Resources Limited – Quarterly Activities Report Dec-21

² Wood Mackenzie, August 2018 (N/A – information not available)

³ MMG Limited – Fourth Quarter Production Report 2021

⁴ Vedanta Zinc - Wood Mackenzie August 2018 (N/A – information not available)

⁵ Teck Resources Limited – Q2 2022 Financial Report

Refer to page 11 for the details regarding the above peer comparison information.



Metallurgical Testwork Program Background

Ore Types and Sample Selection

Samples from the two principal mineralised units were sourced from locations at both the Chinook and Tonka deposits (see Appendix 1 – Table A).

Composite A (EHS001/002) description

Composite A was made up of sonic drill holes EHS001 – sampled interval 66.50-86.00m (twin of EHRC050) and EHS002 – sampled interval 59.50-64.00m (twin of EHRC044) from the Chinook Prospect.

This composite included transition to fresh reworked dolomite and siderite altered marl breccia with both gossanous and fresh visible sphalerite and pyrite in a clay matrix. These sample intervals were described as representative of the high grade mineralisation within the Navajoh Unconfomity Unit at Chinook.

Composite B (EHD019) description

Composite B was sourced from HQ diamond drill hole EHD019 – sampled interval 120.4-133m (twin of EHRC399) from the Colorado Zone at the Tonka Prospect.

The composite was made up of principally fresh Navajoh Unconformity Unit – poorly sorted matrix supported collapse breccia with quartz, marl, dolomite, siltstone and shale clasts. Predominant sulphides, sphalerite and pyrite, are disseminated throughout unconformity interval.

Composite C (EHD027) description

Composite C was sourced from PQ diamond drill hole EHD027 – sampled interval 139.3m-165.5m, from the Colorado Zone at the Tonka Prospect.

This composite was made up of well-developed fresh silicified stromatolitic dolomite with dolarenite beds and minor to moderate sphalerite, galena and pyrite bands within stromatolite growth bands and styolites.

This composite was chosen as a representative low-grade intersection within the Tonka mineralised envelope.

Mineralogy

QEMScan mineralogy on the Composite A from Chinook was performed by CSIRO during the year. QEMScan provides automated, rapid and accurate mineralogical analysis, and measures mineralogical variability at a micron scale.

By mapping the sample surface, information such as particle and mineral grain size and shape, mineral associations, mineral liberation, elemental deportment is quantitatively calculated.

The studies (refer to Figure 1) revealed that the sphalerite (zinc) and pyrite are both relatively coarse, well liberated and had a strong mutual association, whilst the lead (galena) is finer and ubiquitous in nature. This work suggested that good recoveries would likely be achievable at coarse grinds (P₈₀ 150 micron) due to the coarse nature of the dominant zinc mineralogy (sphalerite). Coarser primary grinds may be more optimal but are yet to be tested.

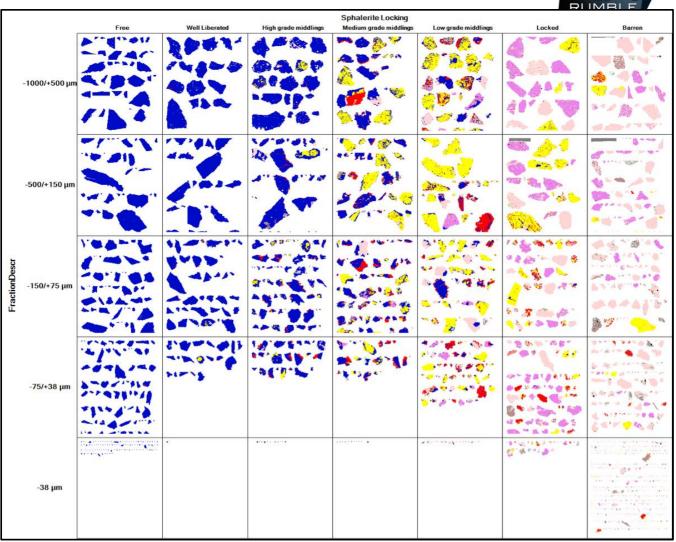


Figure 1: QEMScan Mineralogy - Sphalerite (Zinc-Blue) Pyrite (Yellow) Locking Image - Chinook

Additionally, QEMScan on Tonka samples is yet to be completed but anecdotally, the rougher flotation responses at the same coarse (150micron) grind have been exceptional – **rougher recoveries between 90% to 97% Zn** (see Table 1), suggesting a strong mineralogical association between the deposits.

Sulphide Flotation

Preliminary metallurgical test work was performed on the three variability composites (A-C) from the zinc dominant ores at the Chinook and Tonka Prospects.

The summarised flotation conditions for this work (refer to Figure 2):

- Ore was dry jaw and rolls crushed to 100% passing 3.35 mm;
- A 1kg sample was then ground at 50% w/w solids in site water in a mild steel rod mill to P₈₀ 150 μm sizing;
- Reagents were added and conditioned for nominated times prior to the various stages of flotation. pH, Eh and air addition were recorded for each stage.
- Rougher flotation was performed in a 2.0L laboratory cell at 34%w/w solids pulp density;
 - The rougher concentrate was then milled in a small rod mill to target P_{80} of 30-35 μm ;
- The concentrate was then cleaned in a 1.0L cell to produce cleaner concentrate that would advance to a 0.5L flotation cell to be refloated to produce a high-grade final concentrate. All products were wet weighed, filtered and dried for weight analysis.



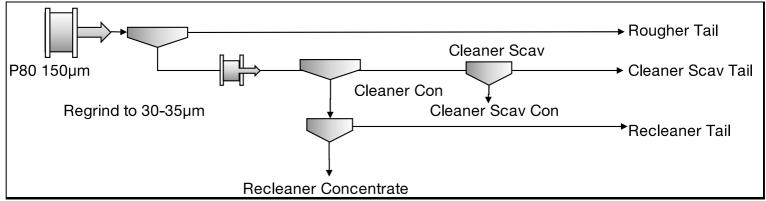


Figure 2: Simplified Flotation Testing Stages

Observations from the work performed to date has highlighted the fast-floating kinetics of the relatively coarse sphalerite at a coarse primary grind P₈₀ of 150 microns, using standard reagents in site water. **Rougher float times under 3 minutes were reported** for the two Tonka (EHD019 and EHD027) composite samples (Figure 3), whilst excellent zinc recoveries (**between 86% to 97%Zn**) are observed in all three composite samples at the coarse grind size. Additionally, it was noted that the rougher tailings are largely insensitive to this primary grind size, and thus there remains the opportunity to test at even coarser grind sizes. This coarse flotation and bulk concentrate can translate into numerous benefits for the Project, including;

- Reducing grinding power requirement and delivering significant energy savings per tonne
- Enhanced production rates via increased milling capacity
- Reduction in grinding media and liner costs

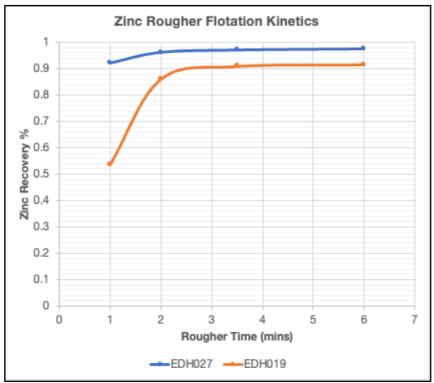


Figure 3: Rougher float kinetics for Tonka composites

Subsequent regrinding of a low mass concentrate product to a P₈₀ of circa 30-35 microns is required to improve the rejection of pyrite which further improves the grade of zinc and lead (59% Zn+Pb average) in the concentrate. Whilst the Company is at a very preliminary phase in its metallurgical studies, outstanding recoveries and marketable concentrate grades have been achieved, even at low grades eg Composite C reporting a 90% Zn recovery and 50% Zn grade in cleaner tests. Going forward, optimisation of the flowsheet will look to continue reducing iron (pyrite) dilution in the concentrate to further improve the zinc grades.





Figure 4: Tonka EDH027 Zinc Cleaner Flotation Test

A simple conventional process flowsheet uses typical reagents (copper sulphate, SIBX and SMBS) at significantly lower dosage rates than a differential flotation scheme, could potentially lead to significant cost savings to a future operation.

Additionally, optimisation work has commenced testing new collectors that the Company believes may further improve the already outstanding metallurgical performance of the Earaheedy ores

Conceptual Flowsheet (see Figure 5)

Based on preliminary flotation and comminution results a conceptual flowsheet consists of a single-stage crusher feeding a SAG and Ball Mill grinding circuit prior to flotation.

The flotation circuit consists of a conventional scheme which includes rougher, scavenger flotation with the rougher concentrate being reground prior to two stages of cleaner flotation.

The final metal concentrate is washed prior to filtration.



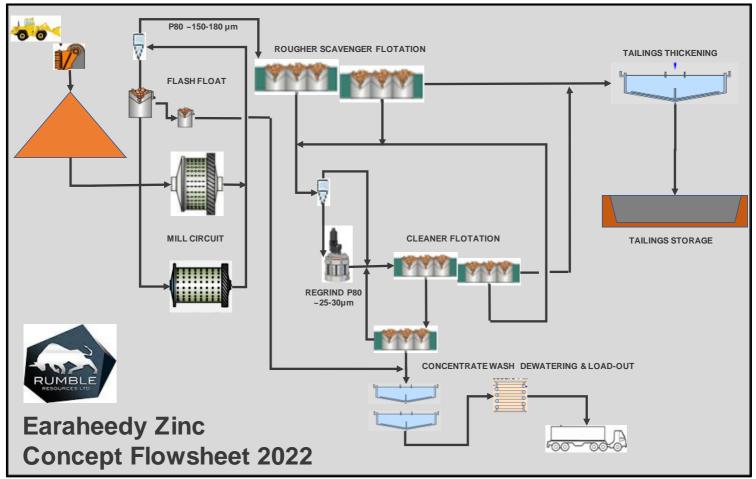


Figure 5: Schematic of potential Earaheedy Conceptual Process Flowsheet

Company	New Century	Glencore	MMG	Vedanta Zinc	Teck	Rumble
Project	Century	Mcarthur River	Dugald River	Gamsberg	Red Dog	Tonka Earaheedy
		% Unle	ess otherwise	stated		
Fe	3	5.9	11	8.9	5.0	6.6
Mn	<0.15	<0.01	2	2.6	<0.01	<0.2
SiO2	5	4.6	3.5	2	4.5	1.35
Cd	0.12	0.12	<0.1	<0.1	0.4	TBD
As	<0.01	0.2	0.02	<0.01	0.02	<0.1
Hg	<50 ppm	40 ppm	15 ppm	22 ppm	80ppm	TBD
Pb	8	4.6	0.2	0.1	3.8	5
S	28.5	30	31	29.4	31.7	33.7
Ag	150 ppm	130ppm	80 ppm	2 ppm	150ppm	TBD

Table 3: Tonka Earaheedy Low Penalty Elements vs Global Producers (orange- penalties apply) apply) (Source: Wood Mackenzie August 2018 (peer concentrate specifications are indicative only and may not represent current concentrate qualities) Refer to page 11 for the details regarding the above peer comparison information



Next Steps at the Earaheedy Project

Metallurgical

The outcomes from this initial sighter metallurgy were exceptional delivering a potentially marketable product via a simple conventional flowsheet with many potential cost (operating and capital) and environmental benefits.

Further work is now planned to test more variability samples to confirm the flowsheet, conditions and improve performance further. The more significant opportunities include:

- Testing a coarser primary grind
- Improved flotation performance with the use of alternative collectors
- Investigations into the nature of any mineral loss to the flotation tail
- Further comminution test work will be performed along with locked cycle flotation tests once the final optimisation test work is completed. The locked cycle work will provide details of penalty and other payment elements not yet analysed from these sighter stages of investigation.
- Value adding beneficiation work (dense media separation and/or ore sorting) will commence once the required volumes of material have arrived from site and a suitable composite prepared in 2023

Exploration

- RC drilling targeting further high-grade feeder zones (eg, Chikamin Feeder Fault) is ongoing within and outside the Sweetwater Trend. Assays pending
- RC Drilling at the Tonka Prospect completed. Assays pending
- The Company is currently planning further RC/DDH drilling to test the many potential high grade east-west and northwest-southeast feeder structures that have been recently outlined via lithostructural mapping and geophysical interpretation over the Project
- Further assessment has commenced to generate targets to test the newly defined high grade copper-silver dominant polymetallic fault system with angled holes that will form part of upcoming planned drill programs
- An independent technical study to determine the optimum drill spacing for a maiden resource is nearing completion, with a maiden JORC mineral resource estimate (MRE) due to be reported in the first half of 2023

About the Earaheedy Project

The Earaheedy Project is located approximately 110km northeast of Wiluna, Western Australia. Rumble owns 75% of E69/3464 and Zenith Minerals Ltd (ASX: ZNC) owns 25%. Rumble has two contiguous exploration licenses, EL69/3787 and EL69/3862 that is held 100% RTR.

Since the major Zn-Pb-Ag-Cu discovery in April 2021, scoping and broad spaced infill drilling has rapidly uncovered an emerging world class scale Zn-Pb-Ag-Cu base metal system, with interpretative geology and drilling continuing to make new discoveries and highlight multiple large-scale deposit targets.

The focus of the geological team remains the targeting, delineation and extension of the high-grade Zn-Pb feeder zones that continue to be discovered contemporaneously with the evolving structural and geological understanding. The recent discovery of the high-grade Chikamin Feeder Zone and the results of the recent geophysical and geochemical surveys has greatly increased Rumble's confidence in defining multiple new high grade mineralised feeder zones within the Earaheedy Project's boundaries.

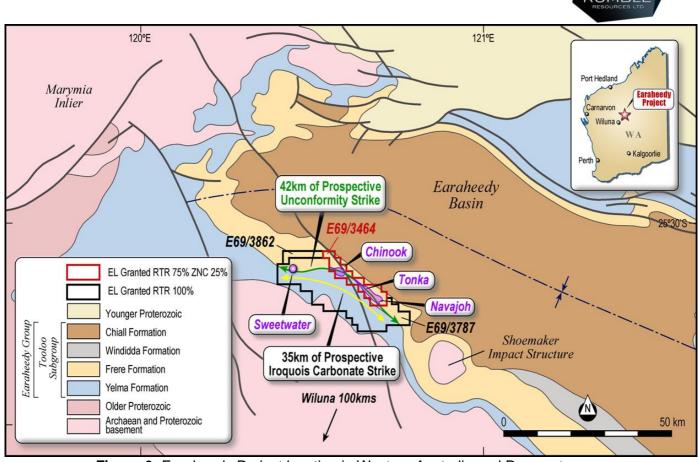


Figure 6: Earaheedy Project location in Western Australia and Prospects

Authorisation

This announcement is authorised for release by Shane Sikora, Managing Director of the Company.

-Ends-

For further information visit <u>rumbleresources.com.au</u> or contact <u>info@rumbleresources.com.au</u>.

Previous Drill Results

Drill hole results are ongoing and previous assays have been reported in earlier ASX announcements.

- ASX Release 23/8/2019 14 High Priority Targets and New Mineralisation Style
- ASX Release 23/1/2020 Large Scale Zn-Pb-Ag Discoveries at Earaheedy
- ASX Release 19/4/2021 Major Zinc-Lead Discovery at Earaheedy Project, Western Australia
- ASX Release 2/6/2021 Large Scale Zinc-Lead-Silver SEDEX Style System Emerging at Earaheedy
- ASX Release 8/7/2021 Broad Spaced Scout Drilling Has Significantly Increased the Zn-Pb-Ag-Mn footprint at Earaheedy
- ASX Release 23/8/2021 Earaheedy Zn-Pb-Ag-Mn Project Exploration Update
- ASX Release 13/12/2021 New Zinc-Lead-Silver Discovery at Earaheedy Project
- ASX Release 21/12/2021 Major Zinc-Lead-Silver-Copper Feeder Fault Intersected
- ASX Release 20/1/2022 Two Key Tenements Granted at Earaheedy Zn-Pb-Ag-Cu Project
- ASX Release 31/1/2022 Shallow High-Grade Zn-Pb Sulphides Intersected at Earaheedy
- ASX Release 21/2/2022 Further High-Grade Zn-Pb Results and Strong Grade Continuity
- ASX Release 9/3/2022 Major Expansion of Zn Pb Mineralised Footprint at Earaheedy
- ASX Release 26/5/2022 Multiple New High-Grade Zn-Pb Zones defined at Earaheedy
- ASX Release 18/7/2022 Heritage Clearance Confirmed- Sweetwater drilling Commenced
- ASX Release 23/8/2022 Significant Zones of Zn-Pb Sulphides Intersected
- ASX Release 30/8/2022 High-Grade Zn-Pb Intercepts at Tonka
- ASX Release 29/9/2022 New 2.2km High Grade Chikamin Feeder Zone Extends Chinook
- ASX Release 03/11/2022 High-Grade Mineralised System discovered at Chinook with grades up to 3.37% Copper and 4450 g/t Silver



About Rumble Resources Ltd

Rumble Resources Ltd is an Australian based exploration company, officially admitted to the ASX on the 1st July 2011. Rumble was established with the aim of adding significant value to its current mineral exploration assets and will continue to look at mineral acquisition opportunities both in Australia and abroad.

Competent Persons Statement

The information in this announcement that relates to exploration results is based on information reviewed by Mr Peter Venn, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Venn is a Director and Technical Consultant to Rumble Resources Ltd. Mr Venn has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Venn consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to metallurgy and metallurgical test work is based on and fairly represents information has been reviewed by Mr Ivan Hunter. Mr Hunter is a metallurgist who is providing services as a consultant to Rumble. Mr Hunter is a member of the AusIMM (FAusIMM). Mr Hunter has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Hunter consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

Previously Reported Information

The information in this report that references previously reported exploration results is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www. asx.com.au). 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. 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.

Disclaimer

This report contains certain forward-looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Rumble Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Rumble Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geoscientists.



Appendix 1 – Drill Hole Details and JORC Tables

Part A. Location and Survey - Sonic and Diamond Holes

Hole ID	E (MGA94)	N (MGA94)	Azimuth	Dip	Depth (m)
EHS001	252842	7165607	0	-90	95.5
EHS002	253284	7165322	0	-90	87.5
EHD019	261978	7160592	0	-90	159.5
EHD027	261842	7160917	0	-90	200.2

Part B. Peer Comparison Source Information

Project	Status	Source
		Fourth Quarter Production Report 2021 www.mmg.com/wp-content/uploads/2022/01/e_2022-
Roseberry	Production	01-24_4QTR-Production-Report.pdf
		Fourth Quarter Production Report 2021 www.mmg.com/wp-content/uploads/2022/01/e_2022-
Dugal River	Production	01-24_4QTR-Production-Report.pdf
Century	Production	ASX Announcement: Quarterly Activities Report Dec-21 (27-Jan-2022)
		Information Relating to Mineral Properties 17-Mar-22 https://minedocs.com/22/Nexa-Mining-
Vazante	Production	Report-03172022.pdf
Mcarthur River	Production	Wood Mackenzie, August 2018
Gamsberg	Production	Wood Mackenzie, August 2018
Red Dog	Production	Q2 2022 FINANCIAL REPORT - ttps://www.teck.com/media/q3-2022-quarterly.pdf
	Roseberry Dugal River Century Vazante Mcarthur River Gamsberg	Roseberry Production Dugal River Production Century Production Vazante Production Mcarthur River Production Gamsberg Production

Note: Peer specifications are indicative only and may not represent current specifications.

Table: Peer Comparison Source Information



Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 Diamond core tail involved PQ3 coring using 3m barrel. Subject to core recovery, the PQ core is split cut in half (along long axis) and the half split is further cut into quarter core for ¼ wet analysis Sonic Core Sampling was completed on 0.5m intervals. Weight 1.5 kg for ¼ core over 0.5m pXRF analysis (Vanta Olympus XRF Analyser) taken every 25 or 50cm on the PQ or Sonic Core. If pXRF response >1000ppm Zn + Pb, then sample taken for wet analysis Samples sent to ALS, Malaga, Perth, WA and are being assayed using a four acid digest and read by ICP-AES analytical instrument. At total of 33 elements are reported including Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn. For Metallurgy test work, select intervals of PQ, HQ3 and Sonic ½ core were composited together using the lab analysis assays to achieve a targeted composite head grades for samples from the Chinook and Tonka Prospects. In most cases, ¼ of the PQ and Sonic core is retained onsite for reference Metallurgical samples collected were despatched to IMO Laboratories in Perth for analysis and testing
Drilling techniques	Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc.)	 Diamond core drilling with RC pre-collar. Core is HQ3, PQ if ground not competent. Core is orientated if ground conditions allow. Sonic core of 100mm using Boart Longyear LS600 track mounted rig
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias 	 Diamond core is cut subject to recovery runs and lithological/mineralisation boundaries Sonic core (100mm) collected as 1m intervals held within a sock. Sample recovery and

Criteria	JORC Code explanation	Commentary
	may have occurred due to preferential loss/gain of fine/coarse material.	representation is 100% of interval. If only small section or partial core recovered, it was not assayed and deemed "no recovery"
	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 Each metre was geologically logged and has undergone field pXRF analysis. The PQ core is marked up for recovery, orientated and geologically logged. Petrographic and mineragraphic samples taken subject to logging. pXRF analysis is also completed for later interpretation and reference. Sonic core logged geology only. Material is broken and no orientation possible. pXRF analysis is completed for later interpretation and reference Logging by all contractors and employees was at an appropriate detailed quantitative standard to support future geological, resource and technical and economic studies.
sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Sonic core sampled only if representative (known depth and full diameter core recovered. Same QA/QC as for RC Sampling Diamond Core drilling subsampling techniques are subject to core recovery. Core cut by diamond saw and sent as quarter core to laboratory for wet analysis For both Sonic and Diamond, if recoveries allow, duplicates taken every 20m. In the case of duplicates, the primary sample is quarter core and the duplicate is quarter core. Sampling QA/QC involved a duplicate taken every 20m, and a standard taken every 20m. 4 standards (OREAS CRMs) levels and one blank were used randomly. For Metallurgy test work, select intervals of PQ Diamond and Sonic ½ core were composited together using the lab analysis assays to achieve a targeted composite head grade. In most cases, ¼ of the PQ, HQ3 and Sonic core is retained onsite for reference Metallurgical sample preparation

Criteria	IOPC Code explanation	Commentary
Criteria	JORC Code explanation	Commentary
		was carried out at the IMO laboratory facilities in Perth following standard preparation procedures for metallurgical test work. All core and prepared samples were stored in a freezer to minimise sample oxidation.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 The assigned assaying methodology (4 acid) is total digest. As discussed, the Vanta pXRF analyser was used to threshold the collection of samples for wet analysis. In addition to Rumble's QA/QC methods (duplicates, standards and blanks), the laboratory has additional checks Metallurgical test work was conducted on transition and fresh mineral samples at IMO and Auralia Laboratories. Test work on the variability composites determined that the mineral value could be successfully recovered following grinding with a bulk zinc concentrate flotation flowsheet
		 The flotation conditions are included in this report.
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	 Significant intersections reported by company personnel only.
assaying	 The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Sonic drill holes were designed to twin existing RC drillholes in order to gain full recovery and visual of the lithology for metallurgical test-work
		 Documentation and review is ongoing. Prior to final vetting, entered into database.
		 Metallurgical sample verification all testing is conducted with sufficient assays to allow a built- up head to be calculated that can be verified against the assay sample value
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 All drillhole collars are surveyed using handheld GPS – Datum is MGA94 Zone 51 at the immediate conclusion of drilling. All drillhole collars were subsequently picked up by use of a DGPS at a later date

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Criteria	JORC C	Code explanation		Commentary
Data spacing and distribution	Results. Whether the data sufficient to estable and grade continue Resource and Ore procedure(s) and	eporting of Exploration spacing and distribution is lish the degree of geological wity appropriate for the Mineral e Reserve estimation classifications applied. compositing has been applied.	•	No resource work completed. The diamond and sonic core drilling is reconnaissance (scoping) by nature and designed to provide sample for metallurgy test work
Orientation of data in relation to geological structure	unbiased sampling extent to which this deposit type. If the relationship and the orientation is considered to he	tation of sampling achieves g of possible structures and the is is known, considering the between the drilling orientation of key mineralised structures ave introduced a sampling be assessed and reported if	•	Previous drilling (and historic) has defined a consistent flat lying sedimentary package. • Drilling is normal (90°) to the mineralised intersections. True width reported. No bias. Diamond and sonic core drilling was vertical. Drill hole length reported.
Sample security	The measures tak	en to ensure sample security.	•	All sampling packaging and security completed by Rumble personnel, from collection of sample to delivery at laboratory.
Audits or reviews	 The results of any techniques and da 	audits or reviews of sampling ata.	•	No audits completed.



Section 2 Reporting of Exploration Results

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Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The Earaheedy Project comprises of a granted exploration license –E69/3464 (75% Rumble and 25% Zenith Minerals) and two granted exploration licenses E69/3787 and E69/3862 (100% Rumble) E69/3464 is in a state of good standing and has no known impediments to operate in the area.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Exploration solely completed by Rumble Resources
Geology	Deposit type, geological setting and style of mineralisation.	The Earaheedy Project Deposit type is considered to be a MVT variant (Irish Style in part). Mineralisation is predominantly stratiform sediment unconformity hosted in both carbonate and clastic flat lying lithologies.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	Table A - Location and Survey Sonic and Diamond Drill Holes
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	Not Applicable as no exploration results being reported.
Relationship between	 These relationships are particularly important in the reporting of Exploration 	 Drilling is vertical. Mineralisation is flat. Width of mineralisation is

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Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	 Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	true width.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Appropriate diagrams, including geological plans are included in the main body of this release
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be 	 All known exploration and metallurgical results have been reported.
	practiced to avoid misleading reporting of Exploration Results.	 Reports on other exploration activities at the project can be found in ASX Releases that are available on our website www.rumbleresources.com.au
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All material and meaningful data collected has been reported.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out	 Sonic core drilling to provide additional material for future metallurgy test work
	 drilling). Diagrams clearly highlighting the areas of possible extensions, including the main 	 Diamond core drilling as required
	geological interpretations and future drilling areas, provided this information is not commercially sensitive.	 Further work will aim to provide a strong metallurgical and mineralogical model and further refine the process flowsheet.
		 Subsequent drilling activities are being planned to infill known mineralisation and test geophysical and geochemical targets elsewhere in the Project area