

23<sup>rd</sup> Aug 2021



#### Corporate Details

**Zenith Minerals Limited (ASX:ZNC)**

ABN: 96 119 397 938

Issued Shares	322.3M
Unlisted options	17.3M
Mkt. Cap. (\$0.20)	A\$64.5M
Cash (5-Aug-21)	A\$7.5M
Debt	Nil

#### Directors

Peter Bird	Exec Chair
Michael Clifford	Director-CEO
Stan Macdonald	Non-Exec Director
Julian Goldsworthy	Non-Exec Director
Graham Riley	Non-Exec Director
Nicholas Ong	Co Sec

#### Major Shareholders

Directors	6.3%
HSBC Custody. Nom.	9.8%
Citicorp Nom	7.6%
BNP Paribas. Nom.	6.5%
Granich	3.8%

#### Our Vision

Zenith has a vision to build a gold and base metals business with a team of proven project finders.

Focus is on 100% owned Zenith projects, whilst partners progress multiple additional opportunities using partner funds.

#### Contact Us

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WEST PERTH WA 6872  
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## UPDATED ANNOUNCEMENT

### EARAHEEDY ZINC JOINT VENTURE – EXPANSION OF DRILL PROGRAM BY 30%

Zenith Minerals Limited (“Zenith” or the “Company”) advises that this version of the announcement includes Rumble Resources Limited’s (ASX:RTR) announcement released on 23 August 2021.

For further information please refer to the Company’s website or contact the Company directly.

**Authorised for release by the Zenith Minerals Limited Board of Directors –  
23<sup>rd</sup> August 2021**

**For further information contact Zenith Minerals Limited:**

Directors Michael Clifford or Peter Bird  
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Phone: +61 8 9226 1110

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## EARAHEEDY ZINC JOINT VENTURE – EXPANSION OF DRILL PROGRAM BY 30%

- The original budgeted drill program at the Earraheedy Joint Venture (EJV) has now been expanded by 30% to 40,000m.
- The increased drill program will continue to focus on the boundary limits of the Chinook Deposit (3.0km x 1.8km) - ASX Release 10-Jul-21, and now push down towards the Magazine and Navajoh Prospects located some 10 – 12km to the southeast.
- Half of the original 30,000m budgeted drill program has now been completed – all assays are pending.
- Four (4) drilling rigs on site supported by a team of eight (8) geologists and thirteen (13) field crew.
- A massive amount of geological data has now been generated:
  - 88 RC holes completed for 14,988m.
  - Assays are awaited on 32 holes, 16 holes are in transit to the laboratory and the remaining 36 holes have yet to leave site.
  - The sonic drilling initiative is targeting the ore zones. This work is now well underway with core recovery at 95%.

**Commenting on the EJV Chairman Peter Bird said:** “We are very pleased that the drill program has now been expanded to 40,000m of drilling up from the initial 30,000m planned. The increased drill program will continue to focus on the boundary limits of the major Chinook Deposit discovery which has a current defined surface projected area of 3.0km x 1.8km. In addition to this initiative the increase in drilling will now push down towards the Magazine and Navajoh Prospects located some 10km to the southeast within the EJV. Rumble has done an excellent job in ramping up activity on site and we look forward to being able to report on new results soon.”

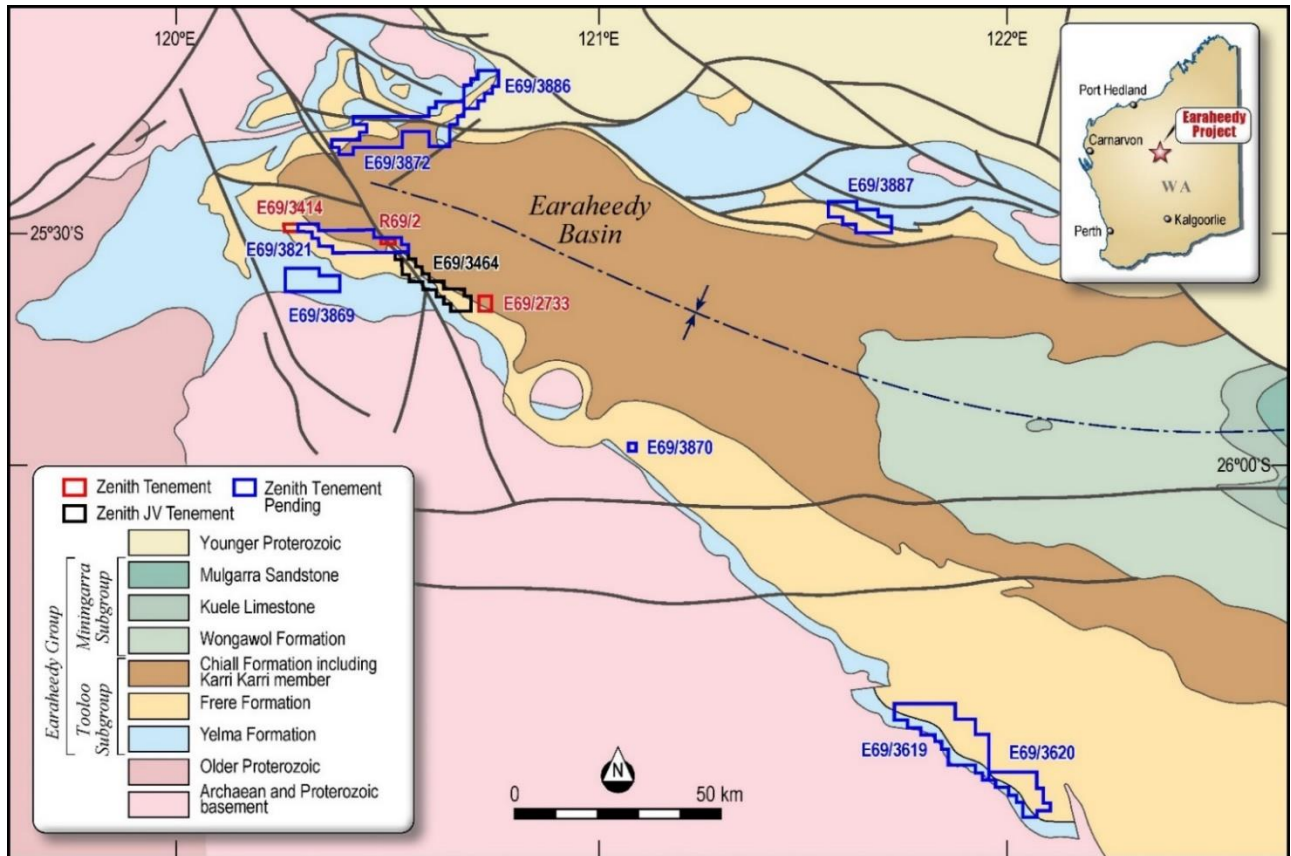
The Company is pleased to provide an update on the major drill campaign underway at the Earraheedy Zinc JV (EJV) located in Western Australia. The EJV partners are Zenith Minerals Limited (25% free-carry to end of bankable feasibility study) and Rumble Resources Limited (ASX:RTR) 75% interest. In addition to the EJV, Zenith in its own right holds leases within the Earraheedy basin covering an estimated 100 lineal kilometres of favourable stratigraphy.

Following the announcement of an 125% increase in the zinc-lead mineralised footprint (see ASX Release 8-Jul-21) the current drill program at the EJV has been upgraded to 40,000m. A third RC rig has arrived onsite to assist in scoping out the overall size of the shallow northeast dipping Zn-Pb-Mn-Ag mineralisation at the Chinook discovery.

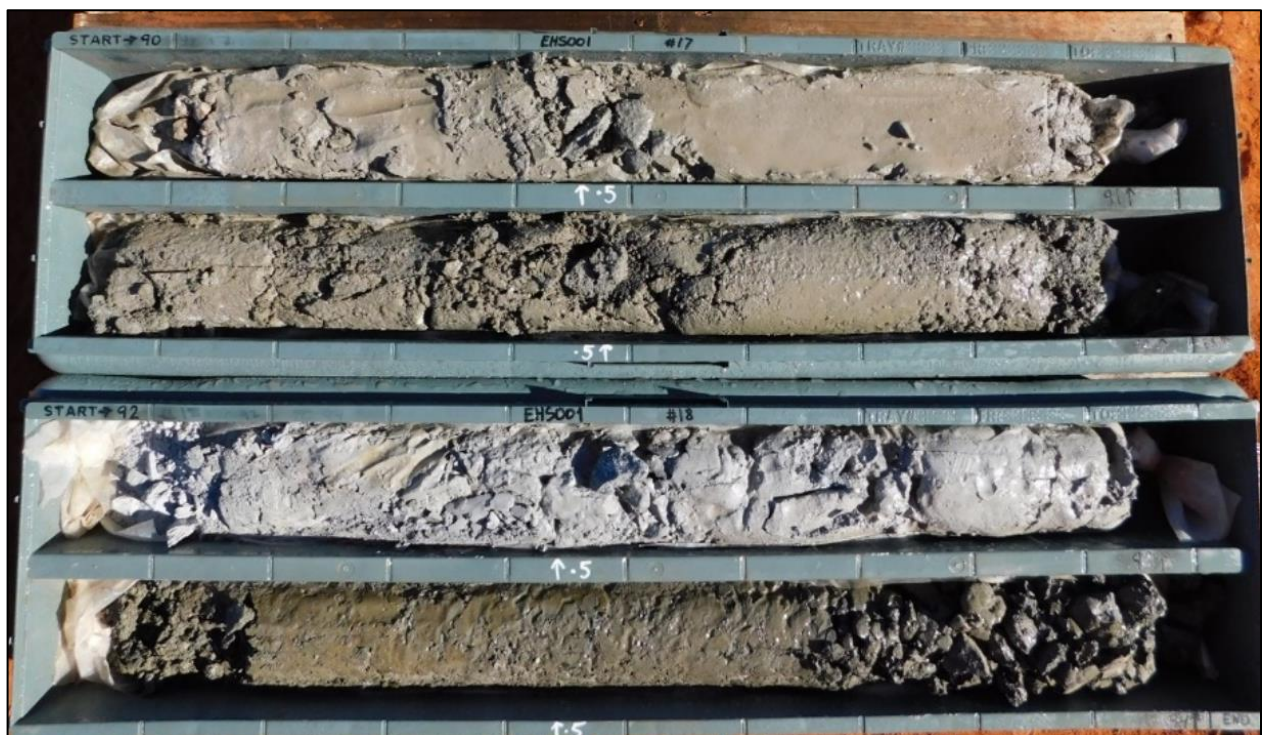
*Photo of RC Drilling at Chinook – Looking southeast towards Magazine (distant hills 10km SE).*



Once the limits of the mineralisation are defined, drilling will then focus on the multiple inferred feeder structures which contain near surface higher-grade Zn-Pb-Mn-Ag mineralisation. In addition, RC drilling is also planned to test the ground between Chinook and the Magazine/Navajoh prospects that lie some 8 to 10km southeast along strike from Chinook (for further details refer to the RTR ASX Release appended to this announcement).



**Figure 1: Zenith Landholdings in the Earaheedy Basin**



**Figure 2 – Mineralisation Zone –Sonic Drilling Core – EHS001 (twin of EHR050). Sphalerite, galena and pyrite mineralisation was logged in this soft primary zone.**

For further information please refer to the Company's website or contact the Company directly.

**Authorised for release by the Zenith Minerals Limited Board of Directors – 23<sup>rd</sup> August 2021**

**For further information contact Zenith Minerals Limited:**

Directors Michael Clifford or Peter Bird

E: [mick@zenithminerals.com.au](mailto:mick@zenithminerals.com.au) / [peter@zenithminerals.com.au](mailto:peter@zenithminerals.com.au)

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**Competent Persons Statement**

*The information in this report that relates to Exploration Results 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.*



## **About Zenith**

Zenith has a vision to build a gold and base metals business with a team of proven project finders. Focus is on 100% owned Zenith projects, whilst partners progress multiple additional opportunities using third party funds.

Zenith is continuing to focus on its core Australian gold and copper projects including:

- 🚩 **Earaheedy Zinc Project** in Western Australia (25% free carry to end BFS). New major zinc discovery to be fast tracked with extensive accelerated exploration program underpinned by a recent \$40M capital raising by partner Rumble Resources Limited (ASX:RTR) (ASX Releases 28-Apr-21, 2-Jun-21, 8-Jun-21).
- 🚩 **Red Mountain Gold Project** in Queensland (100% owned) where ongoing drilling is following-up the high-grade near surface gold and silver intersected in the maiden & subsequent drill programs (ASX Releases 3-Aug-20 & 13-Oct-20, 9-Nov-20, 21-Jan-21), including:
  - 13m @ 8.0 g/t Au & 3.2 g/t Ag from surface
  - 15m @ 3.5 g/t Au, incl. 2m @ 22.4 g/t Au
  - 5m @ 10.4 g/t Au, and
  - 12m @ 4.9 g/t Au
- 🚩 **Split Rocks Gold Project** in Western Australia (100% owned), where recent drilling returned, high-grade near surface gold mineralisation at multiple targets (ASX Release 5-Aug-20, 2-Sep-20, 19-Oct-20, 28-Oct-20, 15-Jan-21, 11-Mar-21, 21-Apr-21, 24-Jun-21), including:
  - Dulcie North: 32m @ 9.4 g/t Au, incl 9m @ 31.4 g/t Au.
  - Dulcie Laterite Pit:
    - 2m @ 14.5 g/t Au, incl. 1m @ 20.8 g/t Au,
    - 18m @ 2.0 g/t Au (EOH) incl. 1m @ 23.7 g/t Au &
    - 14m @ 3.5 g/t Au
  - Estrela Prospect: 2m @ 9.8 g/t Au (open to north & south)
  - Dulcie Far North: 5m @ 5.6 g/t Au incl. 4m @ 6.8 g/t Au, 3m @ 70 g/t Au
  - Water Bore: 3m @ 6.6 g/t Au
- 🚩 **Develin Creek Copper-Zinc Project** in Queensland (100% owned) – maiden drill test of the new Snook copper target located 30km south of Zenith's JORC resources discovers massive copper-zinc sulphides (ASX Release 17-Dec-20). Drill results from Sulphide City include: 29m @ 2.3% Cu, 1.2% Zn, 0.3g/t Au, 4.2 g/t Ag (ASX Release 5-Jul-21).
- 🚩 **Jackadgery Gold Project** in New South Wales (option to earn initial 90%), historic trenching returned 160m @ 1.2 g/t Au. No drilling to date. Zenith planning maiden drill test (ASX Release 10-Sep-20).

23<sup>rd</sup> August 2021

ASX ANNOUNCEMENT



## Earaheedy Zn-Pb-Ag-Mn Project Exploration Update

### Earaheedy Project - Chinook Zinc-Lead Discovery

#### Drill Program upgraded to 40,000m (from initial 30,000m)

##### Progress to date

- Drilling progress is at **14,988m** comprising of:
  - Eighty-eight (88) RC Drill Holes
  - Eight (8) Diamond Core Drill Holes
  - One (1) Sonic Drill Hole
    - Near complete core recovery (95%) by sonic drilling rig
- Thirty-two (32) RC drill hole assays in laboratory awaiting analysis
- Fifty-two (52) RC drill hole assays in transit to lab and on site

##### Drill Rig Update

- One (1) Sonic Rig – Currently operating on site
- Three (3) RC Rigs – Currently operating on site

##### Surface Geophysics

- Major infill gravity survey completed – processing commenced
- Passive seismic survey completed – processing commenced

##### Human Resources & Logistics

- Large 24-man mobile camp set up on site and scalable
- A high calibre exploration team of 8 geologists and 13 field technicians has been assembled on site with further appointments planned as the program expands
- Assay analysis turnaround has been delayed due to the high level of exploration activity currently being undertaken in Western Australia

Rumble Resources Limited (ASX: RTR) (“Rumble” or “the Company”) is pleased to provide an exploration update on the exciting and rapidly advancing Chinook Zinc-Lead discovery at the Earraheedy Project, located approximately 110km northeast of Wiluna, Western Australia.

Rumble Resources Ltd

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##### ASX RTR

##### Executives & Management

Mr Shane Sikora  
Managing Director

Mr Brett Keillor  
Technical Director

Mr Matthew Banks  
Non-executive Director

Mr Michael Smith  
Non-executive Director

Peter Venn  
Non-executive Director

Mr Steven Wood  
Company Secretary

## Drill Program upgraded to 40,000m – Progress to date

Following the announcement of an 125% increase in the zinc-lead mineralised footprint (see ASX announcement 8 July 2021) the current drill program at the Earaheedy Project has been upgraded to 40,000m. Subsequently, a third RC rig has arrived onsite to assist in scoping out the overall size of the shallow northeast dipping Zn-Pb-Mn-Ag mineralisation at the Chinook discovery. Once the limits of the mineralisation are defined, drilling will then focus on the multiple inferred feeder structures which contain near surface higher-grade Zn-Pb-Mn-Ag mineralisation. In addition, RC drilling is also planned to test the ground between Chinook and the Magazine/Navajoh prospects that lie some 8 to 10km southeast along strike from Chinook.

### RC Drilling – Current Program

- A total of 88 RC drill holes completed for 14,988m
- Currently three (3) RC rigs on site
- Only four (4) holes reported to date of this current program (see ASX announcement 8 July 2021 – Significant Increase in Earaheedy Mineralisation Footprint)
- Thirty-two (32) RC drill hole assays at laboratory awaiting analysis
- Sixteen (16) RC drill hole assays in transit to assay laboratory
- Thirty-six (36) RC drill hole assays on site



**Image 1 – RC Drilling at Chinook – Looking southeast towards Magazine (distant hills)**

### Diamond Core Drilling

Diamond core drilling at Chinook has focused on twinning previously reported RC drill-holes to enable grade reconciliation. However, several attempts to gain full recovery of core has been unsuccessful due to water and alternating hard and soft layers within the mineralised zone. Sonic drilling is now being trialed to optimise core recoveries.

- Eight (8) diamond drill holes completed for 904m
- All holes returned less than 50% core recovery



## Sonic Core Drilling

Rumble has engaged Sonic drilling specialists (Groundwave Drilling Services) to assist in improving the core recovery within the mineralized zones. The Sonic drilling program will initially twin three (3) drill-holes (EHRC044, EHRC050 and EHRC061). The first drill-hole EHS001 successfully completed a twin hole of EHRC050 (34m @ 4.22% Zn + Pb from 66m – see ASX announcement 19 April 2021), returning very high (95%) core recoveries.



**Image 2** – Mineralisation Zone –Sonic Drilling Core – EHS001 (twin of EHRC050). Sphalerite, galena and pyrite mineralisation was logged in this soft primary zone.



**Image 3** – Sonic Rig operating at Chinook Prospect



## Surface Geophysics – Target Generation

Rumble recently completed gravity and passive seismic surveys which are now being processed and interpreted. The aim of the surveys is to complement the airborne magnetics and aid in understanding the structural controls that upgrade the tenor of the Zn-Pb-Mn-Ag mineralization of the very large sediment hosted base metal system.

Once the results are analysed, the combination of airborne magnetics, gravity and passive seismic may provide a valuable targeting tool to vector into the inferred higher-grade base metal feeder structures at the Chinook discovery and delineate new discoveries along the 45km's of prospective strike within the Earacheedy Project.

### Gravity Survey

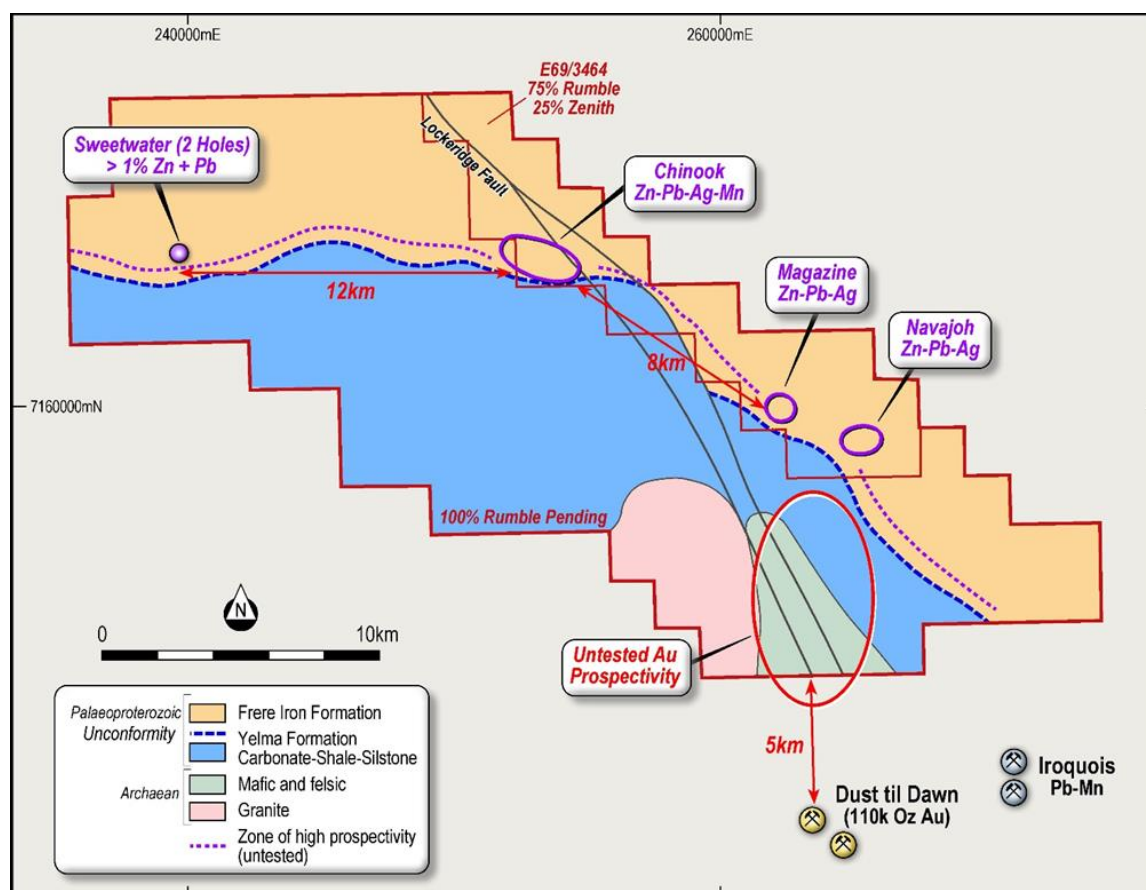
An orientation gravity survey completed over the main known extent of Chinook and immediate surrounds (announced 8th July 2021) confirmed multiple NW to NNW trending gravity trends that correlate with the multiple inferred feeders (also interpreted from airborne magnetics) which host the higher-grade Zn-Pb mineralization. Following on from the success of the orientation program, Rumble has expanded the program to:

- Cover the 12km of strike between Chinook and Magazine – See Image 4
  - 2,059 gravity stations on a 100m by 100m grid have now been completed
  - Modelling (inversion) and geological reconciliation is ongoing

### Passive Seismic Survey

A passive seismic survey has been completed at the Chinook Prospect and was designed to coincide with existing drill-hole sections.

- Eleven (11) lines completed over current drill hole sections
- A total of 636 stations on 25m spacings were utilised in the survey
- Correlation with geology from drill hole sections is ongoing
- Subject to interpretation, further passive seismic is planned



**Image 4 - Earacheedy Project Geology with principal Zn-Pb-Ag and Au Prospects**

## Human Resources & Logistics

Rumble has significantly increased the exploration team at Earraheedy with eight (8) geologists and thirteen (13) field technicians, with recruitment is ongoing. To complement the growing field crew, a mobile camp has now been established on site (see Image 5).



**Image 5 – Earraheedy Field Camp**

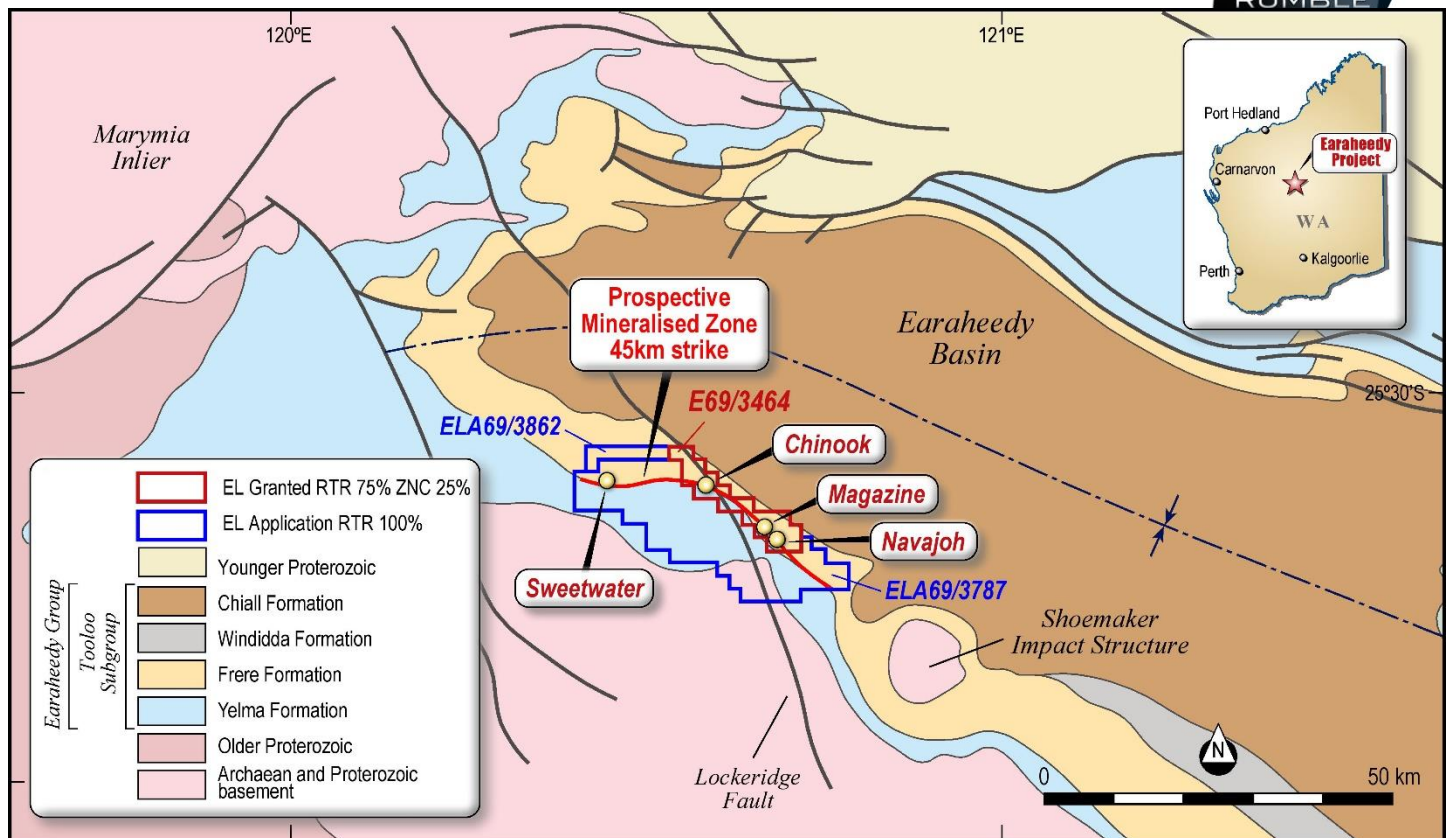
## About the Earraheedy Project

The Earraheedy 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 applied (100%) for two contiguous exploration licenses ELA69/3787 and ELA69/3862, south and west of E69/3464. The entire project area covers the inferred unconformity contact between the overlying Frere Iron Formation and underlying Yelma Formation of the Palaeoproterozoic Earraheedy Basin.

On April 2021 Rumble announced a major Zinc-Lead Discovery with 'Tier 1' potential at the Earraheedy Project (see ASX Announcement 19 April 2021) and followed this up by announcing a Large Sedex Style System Emerging at the Earraheedy Project (see ASX announcement 25 May 2021) on E69/3464.

There are three main prospects within E69/3464, Chinook and Magazine/Navajoh which lie 12km apart. Within the project area, Rumble controls 45km of prospective mineralised strike which has the potential for multiple large tonnage Zn – Pb deposits - See image 6.





**Image 6 – Earaheedy Project With Regional Geology and Prospect Locations**

## First Stage Exploration Target

Rumble's Zn-Pb exploration target at the Earaheedy Project is between 100 to 120 million tonnes at a grade ranging between 3.5% Zn-Pb to 4.5% Zn-Pb. The exploration target is at a shallow depth (120m), and over 40kms of prospective strike (completely open) has been defined within the Earaheedy Project. The potential quantity and grade of the exploration target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The exploration target, being conceptual in nature, takes no account of geological complexity, possible mining method or metallurgical recovery factors. The exploration target has been estimated in order to provide an assessment of the potential for large-scale Zn-Pb deposits within the Earaheedy Project. The exploration target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

### Earaheedy Zn-Pb Project – Exploration Target

Range	Tonnes	Grade
Lower	100,000,000	3.5% Zn + Pb
Upper	120,000,000	4.5% Zn + Pb

**Table 1:** Near surface exploration target down to 100 metre - shallow depth

The potential quantity and grade of the exploration target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The exploration target is based on the current geological understanding of the mineralisation geometry, continuity of mineralisation and regional geology. This understanding is provided by an extensive drill hole database, regional mapping, coupled with understanding of the host stratigraphic sequence.





Included in the data on which this exploration target has been prepared is recent RC drilling of seventeen (17) holes for approximately 2,500m (RC/Diamond), thirty (30) holes for 2,690m (three RC stages), eighty-eight (88) RC holes for 14,988m recently completed (ongoing) and diamond drilling of four (4) holes for 1,199.8m completed by Rumble along with sixty-four (64) historic RC drill holes completed within the project area (E69/3464) by previous explorers (refer historical exploration results in previous ASX announcements dated 5 February 2019 and 12 October 2017, 23rd January 2020 which continue to apply and have not materially changed). Some of the considerations in respect of the estimation of the exploration target include:

- Drilling results have demonstrated strong continuity of shallow, flat lying mineralisation;
- Over 45km's of prospective strike and open (refer image 6);
- Minimum 600m of width (based on shallow 7.5° and shallow depth to 120m, based on drilling results;
- True width (thickness) of mineralisation up to 34 metres received in drilling results; and
- Specific gravity (SG) of 2.5 (world average SG of sandstone – not accounting for metal).

The Company intends to test the exploration target with drilling and this further drilling is expected to extend over approximately 12 months. Grade ranges have been either estimated or assigned from lower and upper grades of mineralisation received in drilling results. A classification is not applicable for an exploration target.

## Authorisation

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

**-Ends-**

For further information visit [rumbleresources.com.au](http://rumbleresources.com.au) or contact [info@rumbleresources.com.au](mailto:info@rumbleresources.com.au).

## 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 report that relates to Exploration Results and Exploration Targets is based on and fairly represents information compiled by Mr Brett Keillor, who is a Member of the Australasian Institute of Mining & Metallurgy and the Australian Institute of Geoscientists. Mr Keillor is an employee of Rumble Resources Limited. Mr Keillor has sufficient experience 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 Keillor consents to the inclusion in the report 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](http://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.