

# ZMI Secures Highly Prospective Strategic Zinc Lead Project in the Earaheedy Basin

#### **HIGHLIGHTS:**

- Company to acquire 100% of ELA 38/3624, located in the Eraheedy Basin along strike from Rumble Resource's (ASX:RTR) recent announcement of a major zinc lead discovery (ASX RTR: 19 April 2021, MCAP ~ \$330m @ 53.5c) with mineralisation hosted by an unconformity between the Frere Iron Formation and the underlying Yelma Formation.
- ELA 38/3624 (~200km²) contains approximately 23km of the prospective unconformity located approximately 200km along strike to the south east from RTR's project. ELA 38/3624 contains hosts similar geology to ASX:RTR.
- Unconformity has been described by RTR as 'a likely regional scale conduit for metal bearing fluids'.
- Acquired licence hosts historic and anomalous zinc in soil results up to 181ppm with no previous drilling on or near the prospective contact.
- Favourable regional structures evident in magnetics.
- Radiometrics, geological mapping and other opensource data appear to trace out the unconformity contact providing a simple vector for exploration.
- Ground exploration is expected to consist of low cost geochemistry and detailed geological mapping programmes with drilling to follow.
- Company finalising firm commitments for a placement of \$1.8m to fund the Acquisition, the exploration of ELA 38/3624 and future exploration. Highly respected Dundee Goodman Merchant Partners Ltd (Canada) and Delphi AG (Germany) are both participating in the Placement.



**Zinc of Ireland NL (ASX:ZMI)** is pleased to advise that it has entered into a binding agreement with the shareholders of Unconformity Zinc Pty Ltd (ACN 649 568 249) (**Unconformity Zinc**) to acquire 100% of the issued share capital in Unconformity Zinc (**Acquisition**).

Unconformity Zinc is the owner of exploration licence application 38/3624 (**Tenement**), which will be owned by ZMI once the Acquisition completes. The Company anticipates that the Acquisition will complete by the end of this week.

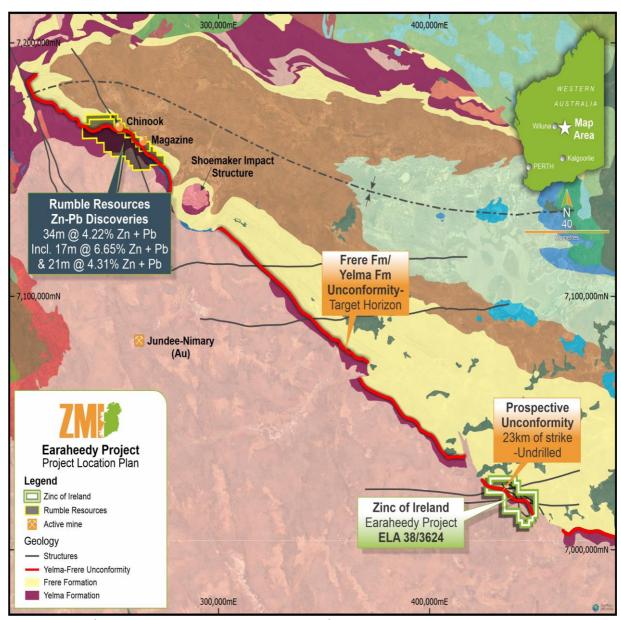
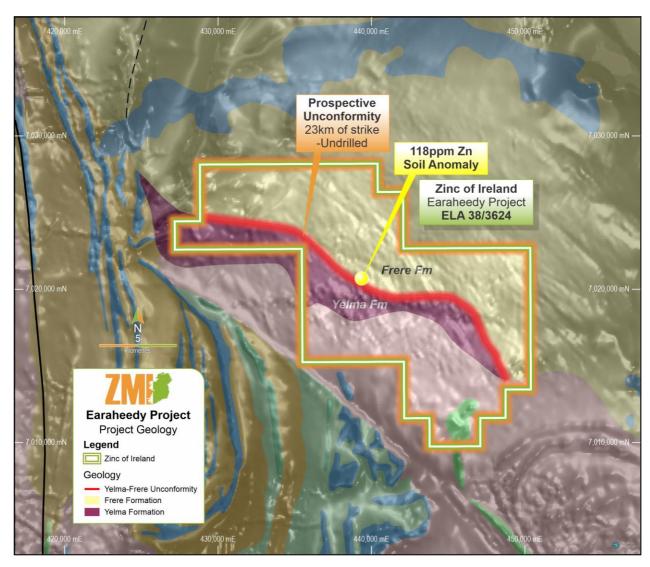


Figure 1. Zinc of Ireland acquisition with respect to unconformity contact and RTR discovery.





<sup>\*</sup> WACHEM dataset; 181PPM Zn Sample ID 166818\_C1M3SD3

Figure 2. Tenement location containing 23km of prospective unconformity striking northwest with anomalous soil sample at the contact.



## **Earaheedy Tenement EL 38/3624**

The Tenement is largely unexplored with previous operators having focused on gold within Archean greenstones adjacent to the Tenement and under Proterozoic cover, especially to the west of the Tenement area. A wide-spaced State geochemistry programme has returned a 181ppm Zn result (WACHEM dataset Sample ID 166818\_C1M3SD3) coincident with the Frere/Yelma Unconformity (refer Figure 2).

The Tenement contains approximately 23km of strike of the target unconformity between the Frere and Yelma formations. The Paleoproterozoic Frere Formation is comprised of granular iron-formation, granular siliceous iron-formation, peloidal chert, siltstone and sandstone and unconformably overlies sandstones, siltstones, shales, minor conglomerates and dolomite of the older Yelma Formation. ZMI considers the Tenement to be prospective for sedimentary exhalative (SEDEX) zinc lead mineralization and amenable to low-cost geochemical exploration techniques along the unconformable contact.

The Zn-Pb mineralization identified at Chinook and Magazine is reported to occur as sphalerite galena and pyrite hosted within sandstone sub-basins overlying the Frere/Yelma unconformity (refer BPM Minerals (ASX:BPM) announcement dated 19 May 2021).

Previous ground-based exploration on the Tenement appears to be limited based on a search of open source data. Airborne magnetic and radiometric was collected by North Ltd in 1996 (WAMEX openfile Ref: A52845) providing coverage of approximately two thirds of the Tenement including all of the unconformable contact target area.

North Ltd have interpreted several structural sets within the magnetic data. These include:

- D<sub>0</sub> NNW-SSE features representing extension
- D<sub>1</sub> NNW-SSE features representing shortening
- D<sub>2</sub> ENE-WSW major throughgoing structures which dominate regional strike
- D<sub>4</sub> N-S features representing dextral strike slip

ZMI will look to attain the original North Ltd raw geophysical data and assess its utility in the planning of initial geochemical programme design and the interpretation of subsequent Zn-Pb results and ranking of drill targets.

The structural regime proposed by North Ltd is also apparent in the government aeromagnetic dataset (Figure 3.) and also has obvious similarities to that depicted on the RTR tenements where the NNW-SSE and ENE-WSW structures are readily apparent, the former appearing to bisect the Tenement.



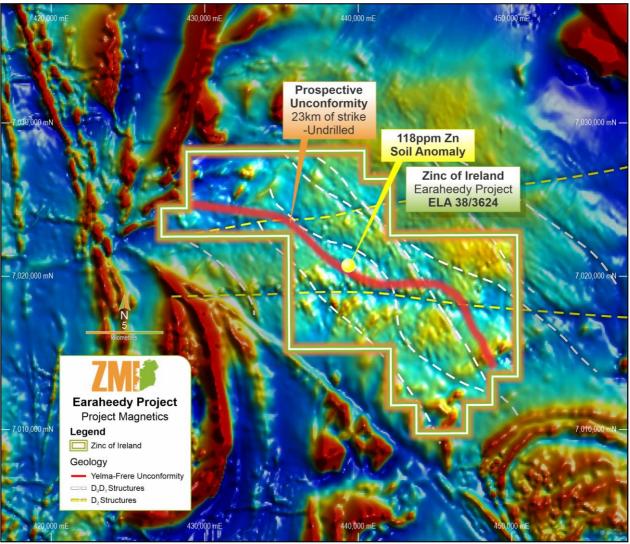


Figure 3. Wamex Open Source Aeromagnetic data (TMI) with strongly developed structural sets.



#### **Sedex Style Mineralisation**

Recent exploration results and associated interpretations reported by RTR (e.g. announcement dated 3 June 2021, www.rumbleresources.com.au) suggest that the Yelma-Frere unconformity has the potential for mixed clastic/carbonate hosted Zn-Pb mineralisation. RTR describe the potential for large scale Zn Pb (Ag) SEDEX style deposits as 'high'. RTR have also identified the potential for multiple inferred feeder faults to host higher grade mineralisation.

The Tenement hosts some 23km of the same Frere-Yelma unconformity which is dissected by similar fault architecture (Figure 3). On that basis the company intends to primarily target SEDEX style mineralisation (Figure 4) in its initial exploration programmes.

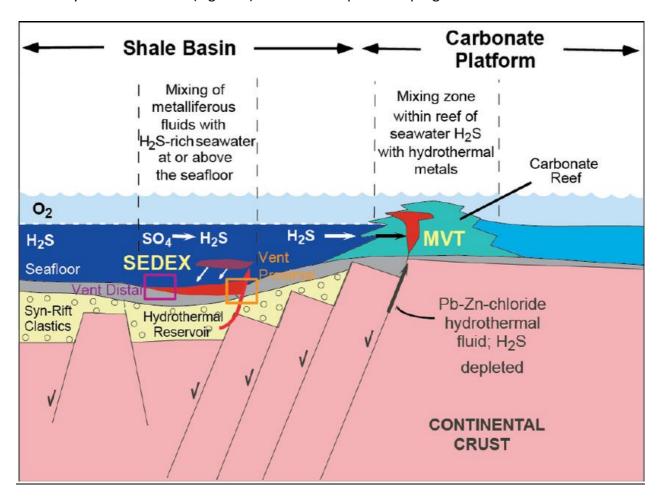


Figure 4. Genetic model for the formation of sediment hosted Zn-Pb mineralisation (SEDEX) from Peter, Jan & Layton-Matthews, Daniel & Gadd, Michael & Gill, Shannon & Baker, S & Plett, S & Paradis, Suzanne. (2015). Application of Visible-Near Infrared and Short Wave Infrared Spectroscopy to Sediment-hosted Zn-Pb Deposit Exploration in the Selwyn Basin, Yukon www.reasearchgate.net.



## **Acquisition Summary**

ZMI has entered into a binding terms sheet with the shareholders of Unconformity Zinc to acquire 100% of the issued share capital in Unconformity Zinc (**Terms Sheet**).

ASX has confirmed that the Acquisition does not constitute a significant change to the nature or scale of its activities and that Company will not be required to re-comply with Chapters 1 & 2 of the ASX Listing Rules.

ZMI has completed its due diligence of Unconformity Zinc and the Tenement to its reasonable satisfaction.

Pursuant to the Acquisition, the shareholders of Unconformity Zinc (**Sellers**) has transferred to the Company all of their respective shares in Unconformity Zinc (**UZ Shares**) for the consideration (outlined below).

As consideration pursuant to the Terms Sheet, the Company will shortly:

- make a cash payment of \$25,000 to the nominated account of Nile Exploration Pty Ltd (or its nominee) as reimbursement of costs associated with the Acquisition; and
- issue to the Sellers, or nominee(s) thereof, of 5,000,000 fully paid ordinary shares in the issued capital of the Company at an issue price of \$0.05 per share (**Consideration Shares**). The Company will seek to ratify the issue of the Consideration Shares at a general meeting.

In addition, subject to receiving Shareholder approval, the Company has agreed to issue to the Sellers as follows:

- 5,000,000 options issued in the Company with an exercise price of \$0.10 each and expiry date of 3 years from the date of issue (**Consideration Options**);
- 11,000,000 Performance Rights which are proposed to vest upon satisfaction of the relevant milestones. The performance milestones are set out below; and
- 5,000,000 Performance Options issued in the Company with an exercise price of \$0.10 each and expiry date of 3 years from the date of issue, which are proposed to vest upon satisfaction of relevant milestones.



The Performance Rights are proposed to vest upon the satisfaction of the following milestones:

Tranche	Milestone	Expiry Date	Aggregate number of Performance Rights
Tranche A	'Tranche A Milestone' will be completed upon announcement by ZMI that the Tenement has been granted by the Department	3 years from the date of issue	5,000,000
Tranche B	'Tranche B Milestone' will be completed upon announcement by ZMI of achieving 2 drill intercepts on the Tenement of greater than 40m apart and each more than 10m thick @ 5% (Zn+Pb)	3 years from the date of issue	6,000,000
Total Performance Rights			11,000,000

The Performance Options are proposed to vest upon the satisfaction of the following milestones:

Tranche	Milestone	Expiry Date	Aggregate number of Performance Rights
Tranche A	'Tranche A Milestone' will be completed upon announcement by ZMI that the Tenement has been granted by the Department	3 years from the date of issue	5,000,000
<b>Total Performance Options</b>			5,000,000

ASX has approved the terms and conditions of the Performance Rights and Performance Options and the Company proposes to obtain shareholder approval for the issue of these securities at a general meeting proposed to be convened in August 2021. A notice of meeting setting out the respective terms and conditions of the Performance Rights and Performance Options will be dispatched to shareholders in due course.



#### **Placement**

In connection with the Acquisition, the Company proposes to undertake a placement to professional and sophisticated investors of a total of 36,000,000 Shares and attaching options at an issue price of \$0.05 per Share to raise an aggregate total of \$1,800,000 (**Placement**) before costs. In connection with the Placement, the Company proposes to issue 18,000,000 free attaching options on a 1:2 basis to placement applicants at an exercise price of \$0.10 each and an expiry of 3 years from their date of issue (**Placement Options**).

GTT Ventures Pty Ltd has been engaged as Lead Manager for the Placement and will receive a fee of 2% of funds raised under the Placement. Other AFSL holders that subscribe to the Placement (either personally or on behalf of their clients) will be entitled to a 4% fee.

The Placement price of \$0.05 per Share represents:

- a 19.74% discount to the volume weighted average price (VWAP) in respect of the last 15 trading days, which was \$0623; and
- a 24.24% discount to the closing price of the Company's Shares on 24 June 2021, which was \$0.066.

The Company confirms that the issue price of \$0.05 satisfies the requirements of Listing Rule 7.1A.

The Placement will be conducted in two tranches with 27,710,623 shares to be issued under Tranche 1 at completion of the Acquisition, utilising the Company's capacity under ASX Listing Rule 7.1 and 7.1A (**Tranche 1**).

The issue of the balance of the Shares being 10,289,377 Shares and the 18,000,000 Placement Options will occur in Tranche 2 (**Tranche 2**). The issue of the Shares and Placement Options the subject of Tranche 2 is subject to the Company obtaining shareholder approval for their issue pursuant to ASX Listing Rule 7.1. The Company will shortly convene a general meeting at which such approvals will be sought.



The funds raised from the Placement will be used to fund exploration and for general working capital purposes as follows:

Item	Amount
Capital Raising fees	\$108,000
Other costs associated with the Acquisition	\$50,000
ASIC/ASX regulatory and ASX listing Fees	\$15,000
Exploration expenditure on Charlestown, Rathdowney Trend and Earaheedy Projects (over a 2-year period as set out below)	\$1,370,000
General working capital	\$257,000
Total	\$1,800,000

Note: The above figures are indicative only and subject to change

Use of funds	Charlestown and Rathdowney Trend Projects (Ireland)		Earaheedy Project (WA)	
	Amount	%	Amount	%
Geology & geochemical targeting	\$70,000	9.7%	\$100,000	15.4%
Geophysical modelling & planning	\$50,000	6.9%	\$50,000	7.7%
Deep geochemical sampling	-	-	\$120,000	18.5%
IP and EM ground geophysics to define drill targets	\$50,000	6.9%	\$100,000	15.4%
First pass drilling program of identified geophysics and geochemistry targets	\$400,000	55.6%	\$200,000	30.7%
Overheads, reporting, operations, logistics etc	\$150,000	20.9%	\$80,000	12.3%
Total	\$720,000	100%	\$650,000	100%



# **Capital Structure**

The indicative capital structure of the Company following the Acquisition and completion of the Placement is set out below:

Capital structure	Existing	Upon completion of Acquisition and Placement
Existing Shares	122,942,494	122,942,494
Shares under the Placement	-	36,000,000
Consideration Shares		5,000,000
Total Shares	122,942,494	163,942,494
Charlestown Performance Rights	6	6
OPTIONS \$0.30 EXP 21 JULY 2021	52,877,901	52,877,901
UNL OPTIONS EXP 02/03/23 @ \$0.20	250,000	250,000
UNL OPTIONS EXP 21/07/21 @ \$0.80	16,316,682	16,316,682
UNL OPTIONS EXP 30/09/21 @ \$1.20	350,000	350,000
UNL OPTIONS EXP 11/07/21 @ \$0.30	1,250,000	1,250,000
UNL OPTIONS EXP 11/07/21 @ \$0.40	1,250,000	1,250,000
Performance Rights (subject to shareholder approval)	-	11,000,000
Performance Options (subject to shareholder approval)	-	5,000,000
Consideration Options (subject to shareholder approval)	-	5,000,000
Placement Options (subject to shareholder approval)	-	18,000,000
Fully diluted share capital	195,237,083	257,237,083



#### **Indicative Timetable**

The proposed timetable of the Acquisition and the Placement is set out below:

Event	Date
Completion of Acquisition Announcement of Acquisition	30 June 2021
Completion of Tranche 1 of Placement	9 July 2021
Notice of Meeting sent to shareholders	13 July 2021
General Meeting	12 August 2021
Completion of Tranche 2 of Placement	13 September 2021

**Note:** The above dates are indicative only and subject to change.

#### **Proposed Work Programme**

ZMI proposes to implement field exploration as soon as possible once the Tenement has been granted by the Department of Mines, Industry Regulation and Safety (**Department**).

The proposed work programme will be comprised of:

- A review of existing open source geological mapping and geophysical surveys to assess surficial cover and the amenability of surface geochemistry along the unconformity;
- Reprocessing any available aeromagnetics to better delineate the iron rich Frere Formation's unconformable contact with the underlying Yelma Formation.
- An initial field visit and ground orientation study to understand the project regolith and types of cover and the most appropriate geochemical sampling technique.
- Visiting the site of the anomalous surface sample recorded in WA GeoView database (181ppm Zn).
- Trial portable XRF (pXRF) lines across unconformity looking for base metals (Zn in particular).
- Upon granting of the EL it is envisaged that the 23km long unconformity corridor will be subjected to systematic pXRF sampling and mapping.
- Anomalous areas will be targeted with conventional soil geochemistry and/or power augur sampling as appropriate.



- Ground geophysical surveys may be carried out to follow up on or supplement areas identified by first pass mapping and sampling.
- Drill planning and permitting.

The absence of previous exploration data (with the exception of sparse broadly spaced, circa 2km by 2km, soil geochemistry) in combination with readily available open source data and the success of RTR along strike has leant itself towards, the proposed implementation of simple, cost effective exploration strategies at the Tenement.

#### ZMI's Non-Executive Director, Mr Tom Corr commented:

"The Tenement puts the Company in a strong early mover position on the Basin directly along strike from Rumble's major recent discovery which we maintain has been a game changer for the area. With 23km of prospective contact, similar structures and a previously overlooked zinc hit in the geochemistry, right where we would expect it to be, we believe this asset complements our Irish portfolio of Zn-Pb assets well. The lack of previous exploration provides a great opportunity for our shareholders and we are looking forward to advancing the project using simple, cost effective and proven exploration methodologies."

This announcement was authorised for release by the Board of the Company.

Richard Monti

Non-Executive Chairman Zinc of Ireland NL www.zincofireland.com



#### Competent Persons' Statements

The information in this report that relates to exploration results is based on information compiled by Mr. Greg Hope, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr. Hope is a consultant geologist with over 25 years industry experience. Mr. Hope has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been 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. Hope consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

#### Disclaimer

Certain statements contained in this announcement, including information as to the future financial or operating performance of ZMI and its projects, are forward-looking statements that:

- may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;
- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by ZMI, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and,
- involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.



# ADDITIONAL INFORMATION JORC CODE, 2012 EDITION – TABLE 1

The following sections are provided for compliance with requirements for the reporting of exploration results under the JORC Code, 2012 Edition.

#### Section 1 Sampling Techniques and Data

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>The Company is focused on exploring the Earaheedy Basin Zn-Pb Project.</li> <li>Open source data available includes WAMEX geochemistry sampling at approximately 2km centres as well as previous company airborne geophysics.</li> <li>An anomalous WAMEX sample SAMPLEID 166818_C1M3SD3; GSWA NUMBER 166818 returned 181ppm Zn.</li> <li>The WACHEM database is a compilation of multielement geochemistry of rocks unconsolidated surface material (regolith) and drill core collected by the Geological Survey of Western Australia. Samples have been analysed for a range of major element oxides, trace elements, rare earth elements (REE), and isotopes by a variety of analytical approaches at commercial, government and university laboratories. In most cases, analysis of unknowns has been carried out along with samples of know composition (reference materials), a second sample of the unknown (sample duplicate), and material which does not contain detectable amounts of elements of interest (blank). These data are included with analysis of unknowns, and these quality control data can be used to gauge the quality of analysis. For inclusion in the geochemical database, analytical data for each element in each sample must include the unit of measurement, lower level of detection (LLD) of that element, and an indication of the analytical technique (usually specified as a laboratory-specific code). To minimise the inclusion of spurious data in the database, analytical batch data are loaded with reference to a set of look up tables, against which data can be checked for consistency. License: Creative Commons Attribution Tags: GSWA, Geochemistry, Geology, Geoscience, Minerals, WACHEM Contact: zzSlipDataAdmin@dmirs.wa.gov.au</li> <li>The sample is located along the contact with the Frere and Yelma Formations. The exploration of this contact has resulted in the discovery of the Chinook and Magazine Zn-Pb occurrences by Rumble Resources ASX:RTR some 200km to the northwest.</li> </ul>



Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	ELA38/3624 appears not to have been the subject of any material exploration beyond reconnaissance sampling and mapping and airborne geophysics.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	• NA
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	• NA
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	• NA
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (egg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	• NA
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage</li> </ul>	• NA



Criteria	JORC Code explanation	Commentary
	<ul><li>(physical and electronic) protocols.</li><li>Discuss any adjustment to assay data.</li></ul>	
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	• NA
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	• NA
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	• NA
Sample security	The measures taken to ensure sample security.	• NA
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• NA



## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Earaheedy Project is comprised of one Exploration Licence, namely ELA38/3624 which is currently held by UZ.</li> <li>ELA38/3624 is currently under application with no known impediments to granting.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>ELA38/3624 appears not to have been the subject of any material exploration beyond reconnaissance sampling and mapping and airborne geophysics.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Earaheedy Project is situated approximately 200km east of Wiluna in the Paleoproterozoic Earaheedy Basin where recent high grade drill intercepts by Rumble Resources ASX:RTR have been reported.</li> <li>Zn-Pb exploration will target some 23km of the known strike length of the unconformable contact between the Frere Formation and the underlying Yelma Formation which the company considers prospective for SEDEX style sandstone hosted Zn-Pb mineralisation.</li> <li>Airborne magnetics indicate that significant faulting occurs within the tenement, the implications of which to potential mineralisation are currently unknown.</li> <li>The Frere and Yelma Formations have been described as fluvial to shallow marine carbonate to open marine siliclastic rocks respectively e.g. Hocking, RM, Jones, JA and Pirajno, F 2020, Yelma Formation (PETy-sz): Geological Survey of Western Australia, WA Geology Online, Explanatory Notes extract, viewed 21 May 2021. <www.dmp.wa.gov.au ens=""></www.dmp.wa.gov.au></li> <li>Akin, SJ 2014, Sedimentology and stratigraphy of the Paleoproterozoic Frere Formation, Western Australia: implications for the evolution of the Precambrian ocean: Geological Survey of Western Australia, Report 130, 133p. </li> <li>Awww.dmp.wa.gov.au/ens&gt;</li> </ul>
Drillhole 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:	NA
	<ul> <li>easting and northing of the drill hole</li> </ul>	



		AND THE TOTAL AND THE
Criteria	JORC Code explanation	Commentary
	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.	
Data aggregation	In reporting Exploration Results,	• NA
methods	weighting averaging techniques, maximum and/or minimum grade truncations (egg 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.	
Relationship between	These relationships are particularly important in the reporting of Exploration	• NA
mineralisation	Results.	
widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a</li> </ul>	
	clear statement to this effect (egg 'down hole length, true width not known').	
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.	• NA
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 practiced to avoid misleading reporting of Exploration Results.	• NA
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;	• NA



Criteria	JORC Code explanation	Commentary
	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	The Company regularly observes this requirement and acknowledges that it will inform the market to the best of its abilities providing that the information is not commercially sensitive.



## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	The Company stores all its exploration data within the acQuire relational database; data are only accepted as Priority 1 following a rigorous validation process and only the Database Manager can make changes to the dataset.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	• NA
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of areado and application.</li> </ul>	• NA
Dimensions	grade and geology.  • The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• NA
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of</li> </ul>	• NA



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Criteria	JORC Code explanation	Commentary
	selective mining units.  Any assumptions about correlation between variables.  Description of how the geological interpretation was used to control the resource estimates.  Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• NA
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	• NA
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• NA
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• NA
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	• NA



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Criteria	JORC Code explanation	Commentary
	<ul> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	• NA
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	• NA
Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	• NA