

# Rare Earth (REE) Ironstone Exploration Targets Identified at Ti-Tree Project

Ironstones in the Gascoyne Region are exceptional hosts for rare earth elements.

## Highlights

- **>10kms of ironstone potential identified through mapping of geophysics and satellite imagery that could host rare earth elements (REE).**
- **Elevated radiometric thorium signatures over the mapped ironstones display a strong correlation, similar to the Hastings Technology Metals Yangibana project and Dreadnought Resources Yin project Mineral Resources immediately to the north of Augustus tenements.**
- **Ironstones in the Gascoyne often host very high concentrations of the two most sought after rare earth elements, Neodymium and Praseodymium, widely used in the manufacture of permanent magnets.**

Augustus Minerals (ASX: **AUG**; “**Augustus**” or the “**Company**”) is pleased to advise that its early ongoing assessment of the Ti-Tree project has yielded positive results in the identification of potential ironstones that could host rare earths in several locations totalling more than 15kms of strike length.

Ironstones in the Gascoyne region already host significant deposits of rare earth elements. Dreadnought Resources<sup>1</sup> announced a rare earth Inferred Mineral Resource in ironstones of **4.8Mt @ 1.67% TREO** whilst Hastings Technology Metals Ltd announced a combined Measured, Indicated and Inferred Mineral Resource at the Yangibana project of **29.93Mt @ 0.93% TREO** in ironstones<sup>2</sup>.

Augustus to date has identified at least **25** possible rare earth ironstone targets from airborne radiometric geophysics, which measures radioactive emissions from the earth's surface (Figure 2).

Several high quality target areas have been the focus of attention at the prospects Cabbage Tree, and Macs Well, where strong thorium (Th) radiometric and iron oxide signatures exist coupled with possible identification of ironstones through satellite imagery show at least **10kms** of possible ironstone formation outcropping at surface (Figure 1).

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### Corporate

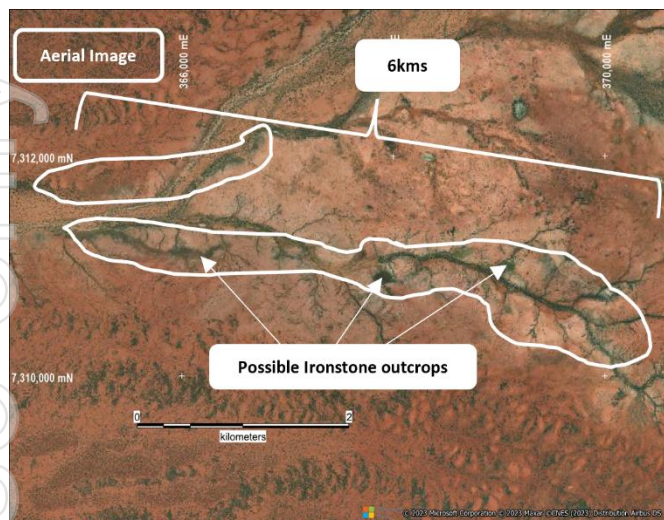
**Brian Rodan**  
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**Darren Holden**  
*Non-Executive Chairman*

**Andrew Reid**  
*Managing Director*  
**Graeme Smith**  
*Non-Executive Director*

**Sebastian Andre**  
*Company Secretary*



## Macs Well target



## Cabbage Tree target

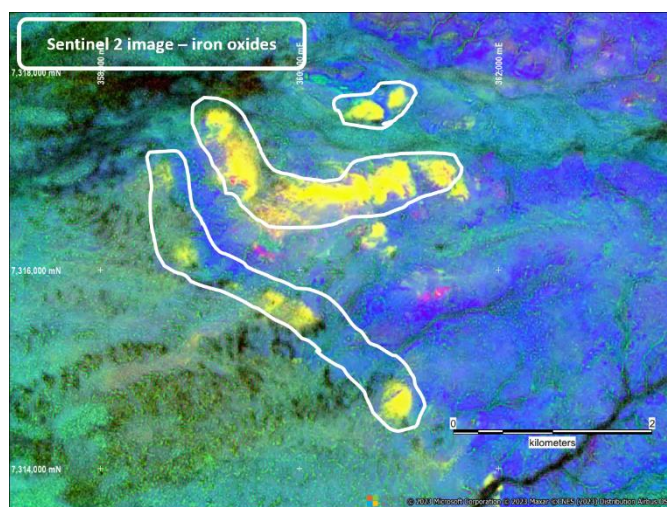
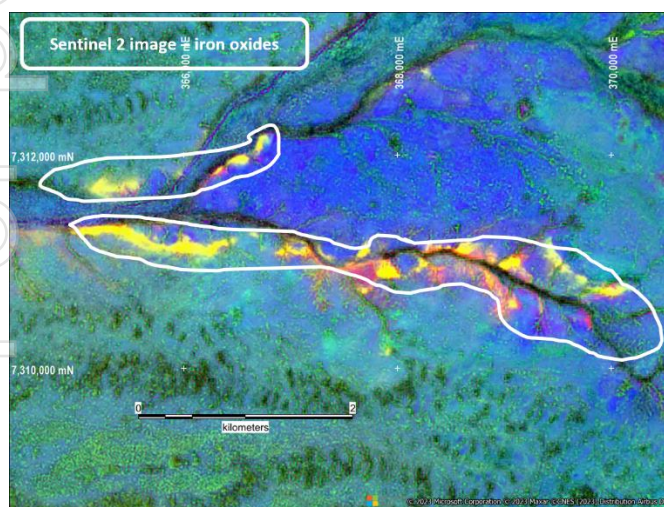
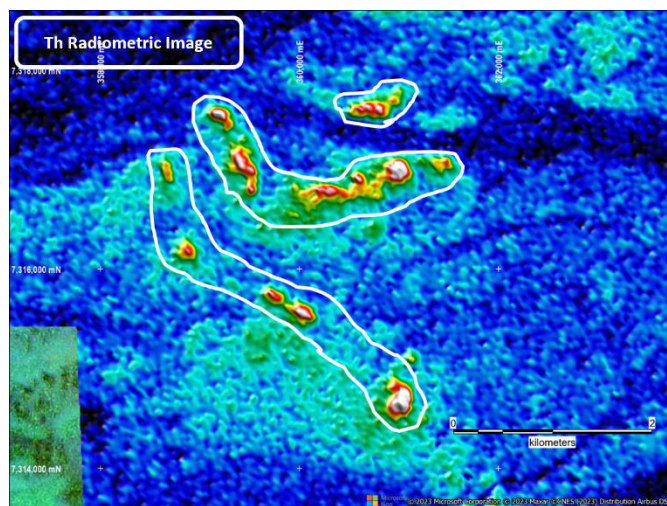
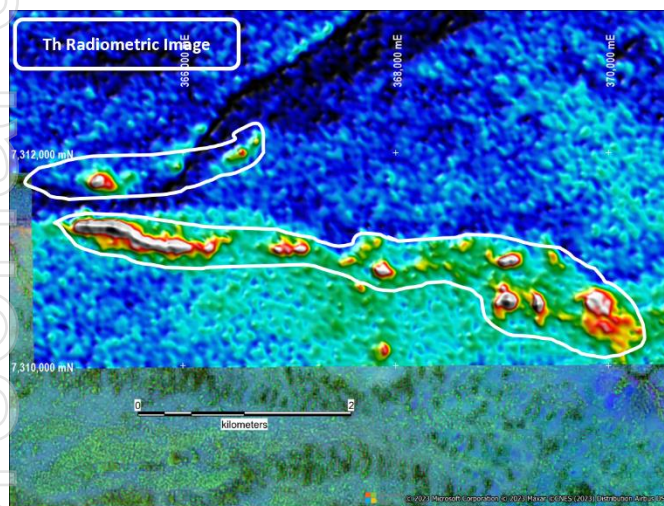
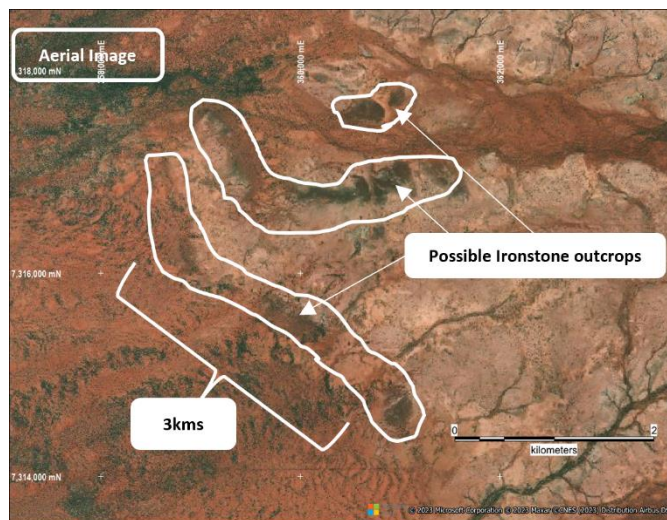


Figure 1. Macs Well and Cabbage Well REE targets, Aerial Photo (top), Thorium (Th) radiometric anomalies (middle) and SENTINEL-2 high-resolution, multi-spectral imaging (bottom) of Iron oxides.



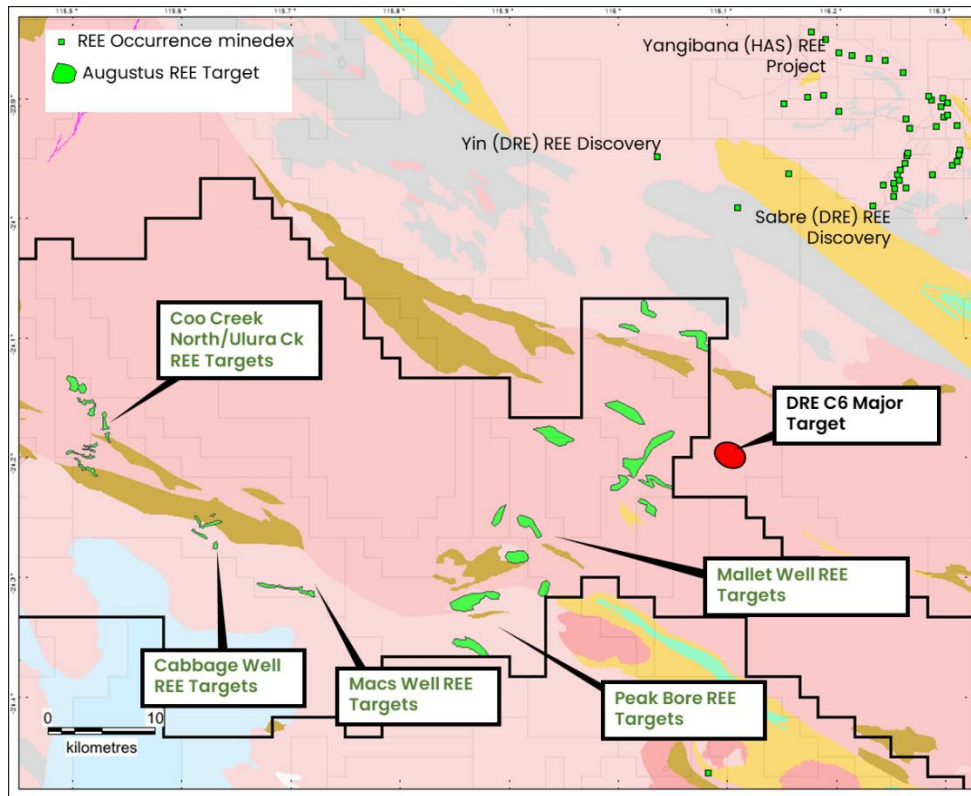


Figure 2. Distribution of Th radiometrics anomalies showing possible REE ironstone occurrences.

## Andrew Reid, Managing Director

"This initial assessment of the rare earth potential on the Augustus tenure highlights the discovery potential for the ground. This multi-layered data combination is a strong indication that ironstones which could host rare earth elements may be present within the Augustus tenure, similar in nature to existing deposits at Dreadnought and Hastings immediately to the north of the Augustus ground.

Ironstones are particularly abundant in the Gascoyne region and the ones that host rare earths are super elevated in concentrations of the two most important rare earth elements Neodymium and Praseodymium used in permanent magnets for EV's and wind turbines.

Augustus has completed a highly successful IPO in which the Company raised \$10m and we are now moving quickly to get on the ground for field checking of these exploration targets."

Authorised by the Board of Augustus Minerals Limited.

## Enquiries

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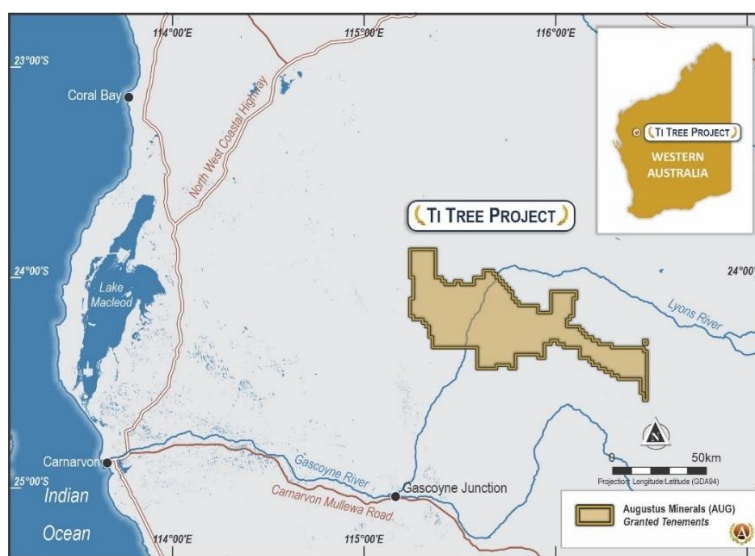
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## About Augustus Minerals (ASX:AUG)

Augustus is a mineral explorer committed to exploring for critical minerals vital for the advancement of electric vehicles and renewable energy.

Augustus has 100% ownership of ~3,600km<sup>2</sup> of tenements located in the Gascoyne Region of Western Australia with an array of high quality drill targets which is highly prospective for lithium, rare earths and copper.

The Company is led by senior executives with significant local critical minerals experience in finding, developing and operating mines.



## Competent Person

The information in this announcement related to Exploration Results is based on and fairly represents information compiled by Mr Andrew Reid. Mr Reid is employed as the Managing Director for Augustus Minerals Ltd and is a fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He consents to the inclusion in this announcement of the matters based on information in the form and context in which they appear.

## Forward looking statements

This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. Augustus Minerals Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Augustus Minerals Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.

## References

<sup>1</sup> ASX: 28 December 2022 - Initial High-Grade, Independent Resource Over 3km at Yin  
100% of the Dreadnought Mineral Resource has been classified in the inferred category.

<sup>2</sup> ASX: 11 October 2022 - Drilling Increases Bald Hill-Frasers Indicated Mineral Res.

Including a breakdown of categories of the Mineral Resource as reported, 4.97Mt Measured, 19.51Mt Indicated and 5.45Mt Inferred.

## JORC Code, 2012 Edition – Table 1 report template

### • Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>No sampling reported</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole 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>	<ul style="list-style-type: none"> <li>No Drilling Reported</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No Drilling Reported</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Reported (no data presented is adequate to support Mineral Resource Estimate, Mining Studies or Metallurgical Studies)</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <ul style="list-style-type: none"> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Reported</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>No sampling data reported.</li> <li>All target areas are reported with Aerial satellite imagery (BING), Thorium radiometrics and Sentinel 2 satellite data compilations.</li> <li>Aerial Imagery was reviewed for dark brown to black zones of potential outcrop which present as possible iron-oxide rich areas and form targets for outcropping ironstone carbonatites.</li> <li>Thorium radiometrics data was collected by MagSpec Ltd, a specialist airborne geophysics company, on behalf of the Company. Flight height was 30m and line-spacing 50m. Radiometrics data was collected with a RSI-RS500 gamma ray spectrometer with 2xRWSX-4 detector packs at 2hz (35m) sample rate. processed by Southern Geoscience Consultants Ltd. Carbonatites in the region are noted for their thorium content, caused by radiogenic minerals.</li> <li>Sentinel 2 is a free and open source of multispectral data (visible bands, short wavelength infrared (SWIR) and near infrared) made available by the European Space Agency. Sentinel 2 was acquired over the project area, and processed by Southern Geoscience Consultants. The application of indices developed AGSO (Australian Geological Survey Organisation, now called 'Geoscience Australia') highlights iron-oxides green band and clay in red, which combine as bright yellow possible weathered ironstone as</li> </ul>

Criteria	JORC Code explanation	Commentary
		presented in the body of the release.
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No sampling reported</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No sampling reported.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No sampling reported</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No sampling reported</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>No sampling reported</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No sampling reported</li> </ul>

## • Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding</li> </ul>	<ul style="list-style-type: none"> <li><b>Macs Well and Cabbage Well</b> located on E09/2310,</li> <li><b>Hidden Valley</b> located on E09/2308</li> <li>Both E09/2310 and E09/2308 are granted to</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<p>Capricorn Orogen PL, a wholly owned subsidiary of Augustus Minerals. The projects are subject to a 2.5% net smelter return royalty in favour of Redland Plains Pty Ltd for all minerals other than gold (which has a sliding scale royalty up to 2.5%), as documented in the Company's prospectus <a href="http://www.augustusminerals.com.au">www.augustusminerals.com.au</a></p> <ul style="list-style-type: none"> <li>A native title exploration access agreement is in place with the native title party. No other special restrictions apply other than those standard for such exploration agreements.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li><b>Macs Well and Cabbage Tree Well</b> have not received attention by previous explorers.</li> <li><b>Hidden Valley area</b>, to the SW of the REE exploration target, has received exploration attention for Cu-Au-Ag-Mo from Catalyst Metals and others (refer to the Independent Technical Report in the Company's prospectus <a href="http://www.augustusminerals.com.au">www.augustusminerals.com.au</a>)</li> <li><b>Macs Well, Cabbage Tree Well and Hidden Valley</b> were reviewed by the Independent Geologist in the Independent Technical Report in the Company's prospectus <a href="http://www.augustusminerals.com.au">www.augustusminerals.com.au</a></li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>All targets are considered prospective for ironstone carbonatite hosted rare earth deposits analogous to Yangibana and Yin deposits owned by other parties in the region.</li> <li>The Macs Well target is mapped regionally (1:500K GSWA) as Durlacher Supersuite granitoids.</li> <li>The Cabbage Tree Well target is mapped regionally (1:500K GSWA) as Durlacher Supersuite and Moorarie Supersuite granitoids with inliers of Leake Spring Metamorphics, and is transected by the Ti Tree Shear.</li> <li>The Hidden Valley target is mapped regionally (1:500K GSWA) as Moorarie Supersuite granitoids.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No Drilling Reported</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> <li>● 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.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>● In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>● 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.</li> <li>● The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>● No Drilling or sampling Reported</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>● These relationships are particularly important in the reporting of Exploration Results.</li> <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 clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>● No drilling or mineralization widths reported.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>● As per the body of this release.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>● No sampling reported</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>● 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</li> </ul>	<p>As per the body of the release.</p>

Criteria	JORC Code explanation	Commentary
<b>Further work</b>	<p><i>substances.</i></p> <ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<p>As per the body of the release and noting:</p> <ul style="list-style-type: none"> <li>The Company is planning reconnaissance mapping, sampling and drilling to test the targets.</li> </ul>