



## **ANNOUNCEMENT**

**26 JULY 2023**

### **Proof of Concept Drilling Completed on New Rare Earth Element Target Near Mount Isa**

Red Metal has recently completed 19 proof-of-concept percussion drill holes testing a new rare earth element target on the "Sybella" project located only 20 kilometres southwest from the city of Mount Isa in Northwest Queensland.

- This project targets a potential new style of weak-acid soluble, rare earth oxide (REO) mineralisation hosted within a unique granite intrusion.
- The rare earth enriched granite intrusion is exposed at surface over a 14 kilometre by 2 kilometre area highlighting its scale and vast tonnage potential.
- Bottom of hole assays from historic shallow drilling across the granite reveal grades greater than 0.3 kg/t neodymium plus praseodymium oxide (NdPr) in many holes.
- Preliminary mineralogical work shows most of the rare earth elements in the fresh granite occur within the highly soluble fluoro-carbonate minerals bastnasite and synchysite.
- Assays from Red Metal's proof-of-concept drilling are expected towards the end of August 2023.

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## Target Concept

Red Metal's experienced exploration team speculate the potential for a new granite-hosted, weak-acid soluble REO deposit style that can be broadly compared with other granite-hosted, weak-acid soluble mineral deposit types such as the giant Rossing and Husab soluble uranium deposits or Morenci soluble copper deposits.

These large tonnage deposit types are characterised by low-grades of soluble ore minerals hosted in low-acid consuming granite rock and can be bulk mined and then extracted using simple coarse grind and low-acid leach processing.

Red Metal's new "Sybella" project, comprising EPM 28001 and EPM28003, follows inhouse research that led to the identification of a unique rare earth element enriched granite exposed at surface over a 14 kilometre by 2 kilometre area and located just 20 kilometres southwest from the city of Mount Isa in Northwest Queensland (Figure 1).

## Historic Drilling

The granite of interest was drilled and sampled as part of a regional seismic traverse by Geoscience Australia in 2007 (line GA 07-003). End of hole assays from this shallow drill traverse provide regularly spaced REE analyses across the granite, highlighting its grade in fresh rock (Figure 1, Table 1). A total of 16 shallow holes intersected the targeted granite with many holes ending in greater than 0.3kg/t neodymium plus praseodymium (NdPr) oxide (Figure 1, Table 1).

## Rare Earth Minerals

A preliminary mineralogical study, undertaken for Red Metal by ANSTO Minerals (ANSTO), show most of the rare earth elements within a typical fresh surface sample of the granite occur within the highly soluble fluorocarbonate minerals bastnasite and synchysite (Figure 2).

## Preliminary Leach Tests on Surface Sample

A single leach test by ANSTO on a finely pulverized surface sample of the fresh granite showed 89% of the light rare earth oxide (REO) dissolved from the granite rock within a short time period using a mild concentration of sulphuric acid (40kg/tonne at 70 degrees for 6 hours, Figure 3). The preliminary ANSTO work also shows a REO product could be rapidly precipitated from the leach solution using oxalate precipitant and importantly, the host granite and leach solution have low thorium and low uranium contents.

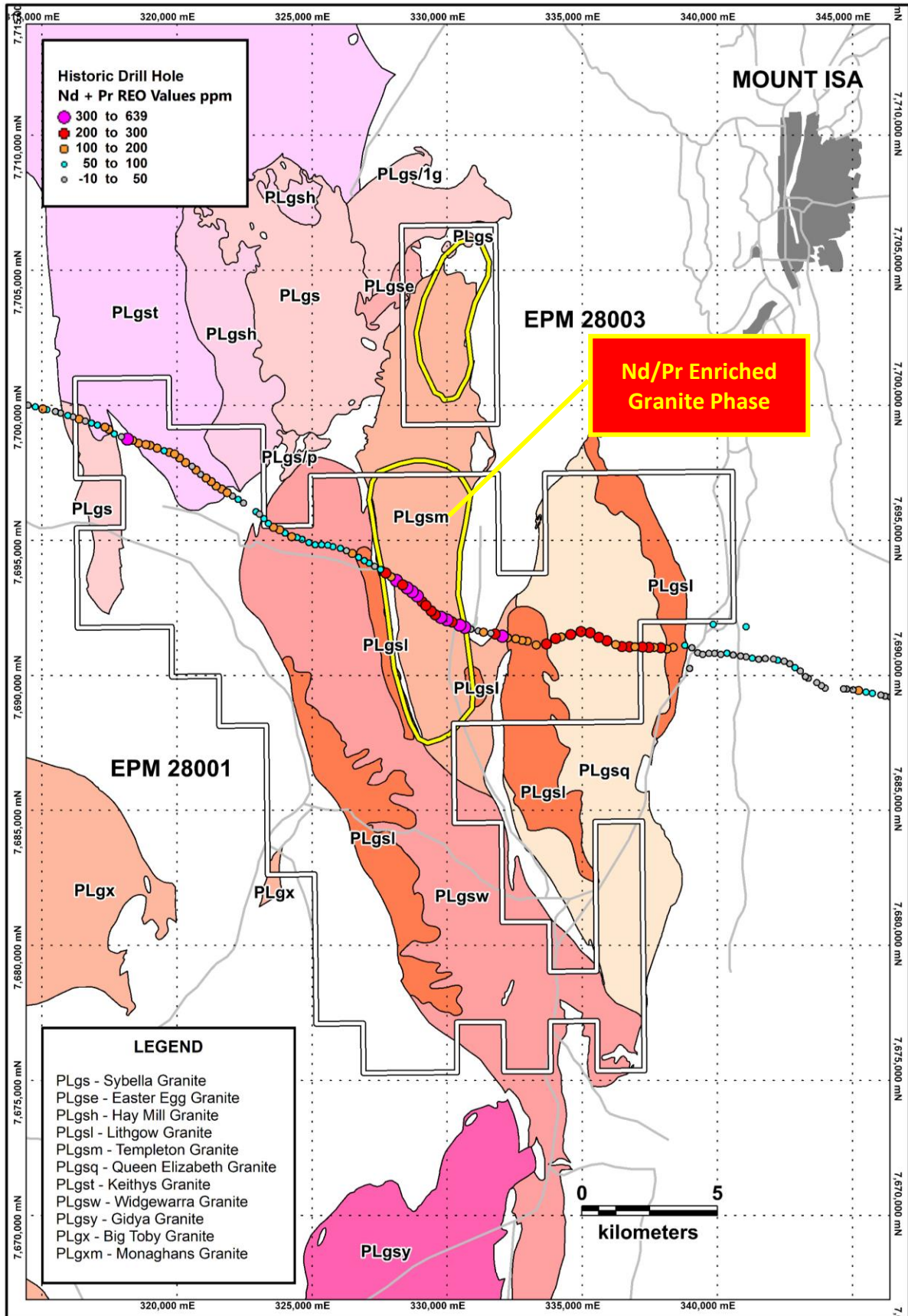
Further detailed metallurgical studies are required to confirm the representative nature of this promising initial result.

## Proof-of-Concept Drill Program

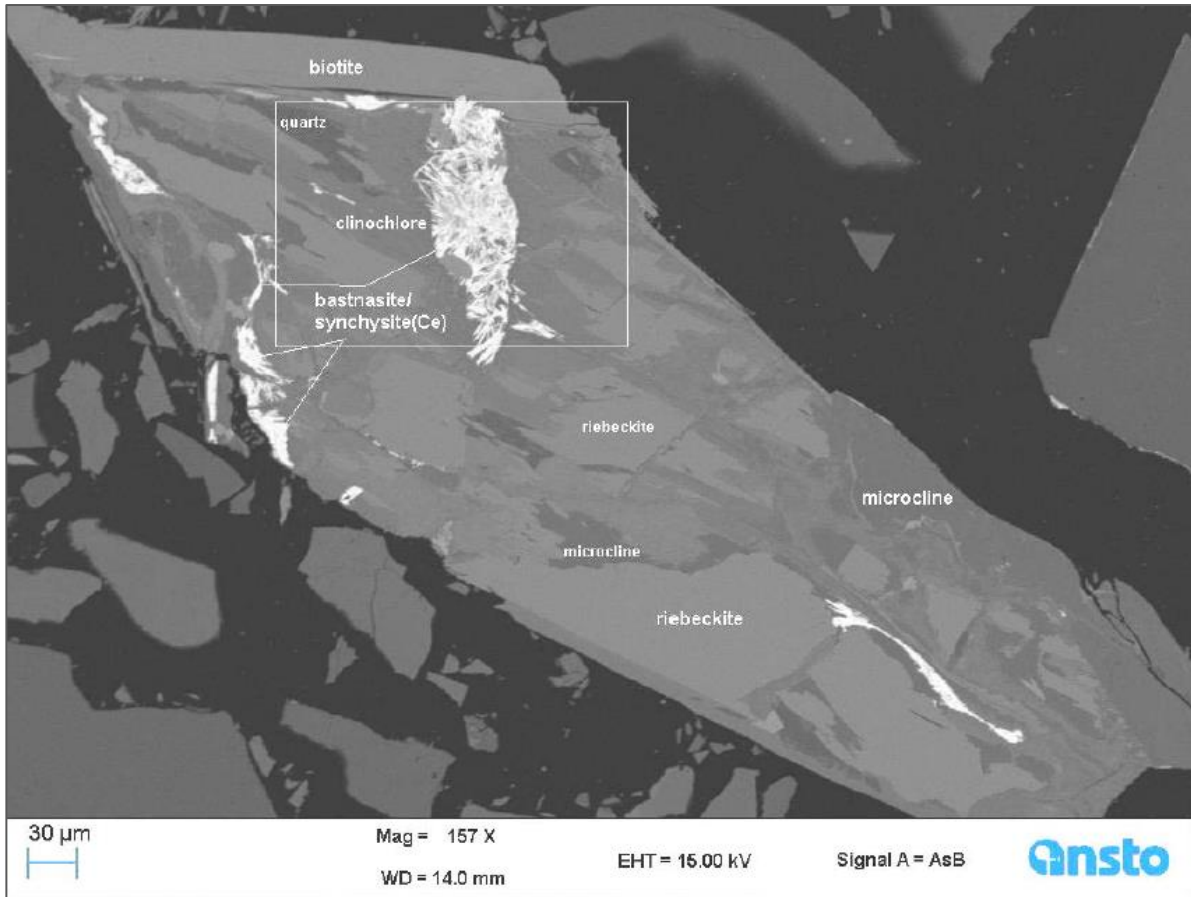
A proof-of-concept percussion drill program totaling 19 holes for 2,280 metres was recently completed across the granite to help validate Red Metal's new target concept (Figure 4, Table 2). Assay results are expected early September 2023.

Red Metal will determine the next phase of exploration of this unique new project following review of the assay results, including the potential for economically recoverable REO mineralisation.

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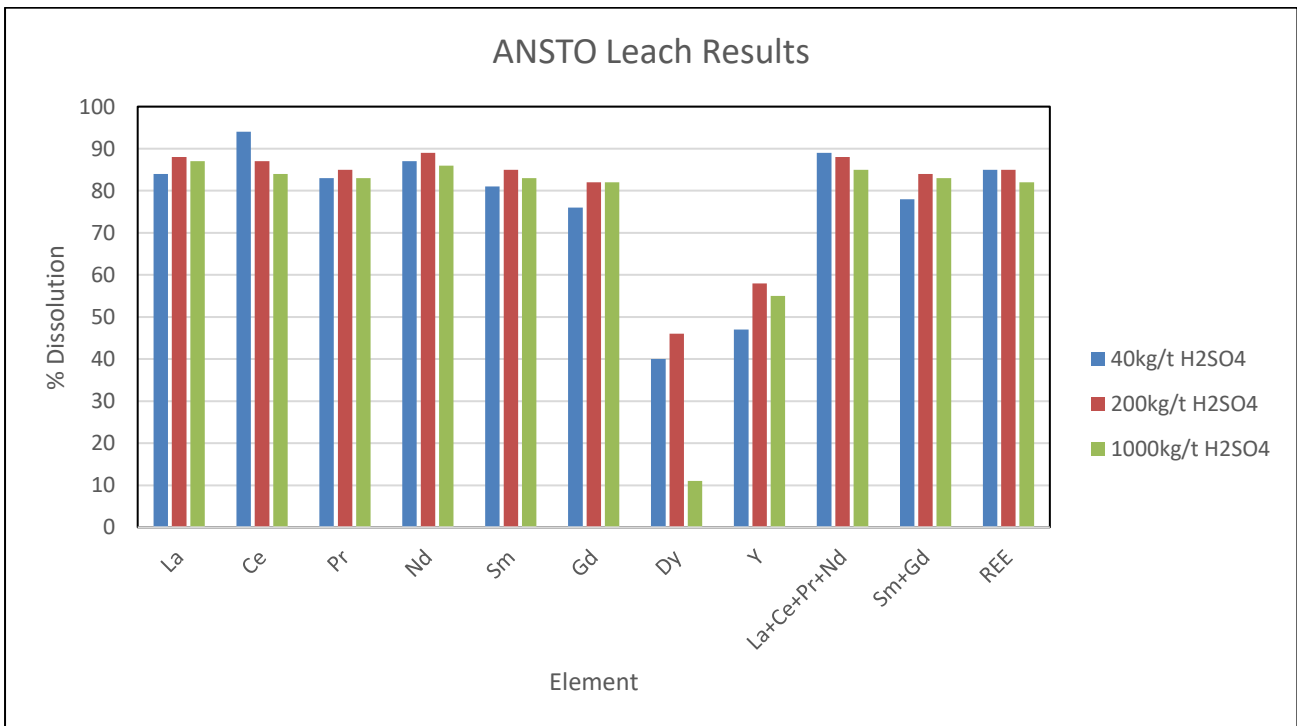


[Figure 1] Sybella Project: Historic percussion drill holes locations showing thematic colour plot of NdPr oxide values from bottom of hole samples overlain on regional a geological map highlighting multiple phases of granite intrusions. Historic holes were drilled as part of a regional seismic traverse by Geoscience Australia in 2007 (line GA 07-003). Note the interpreted extent of the targeted NdPr enriched granite phase (yellow outline).



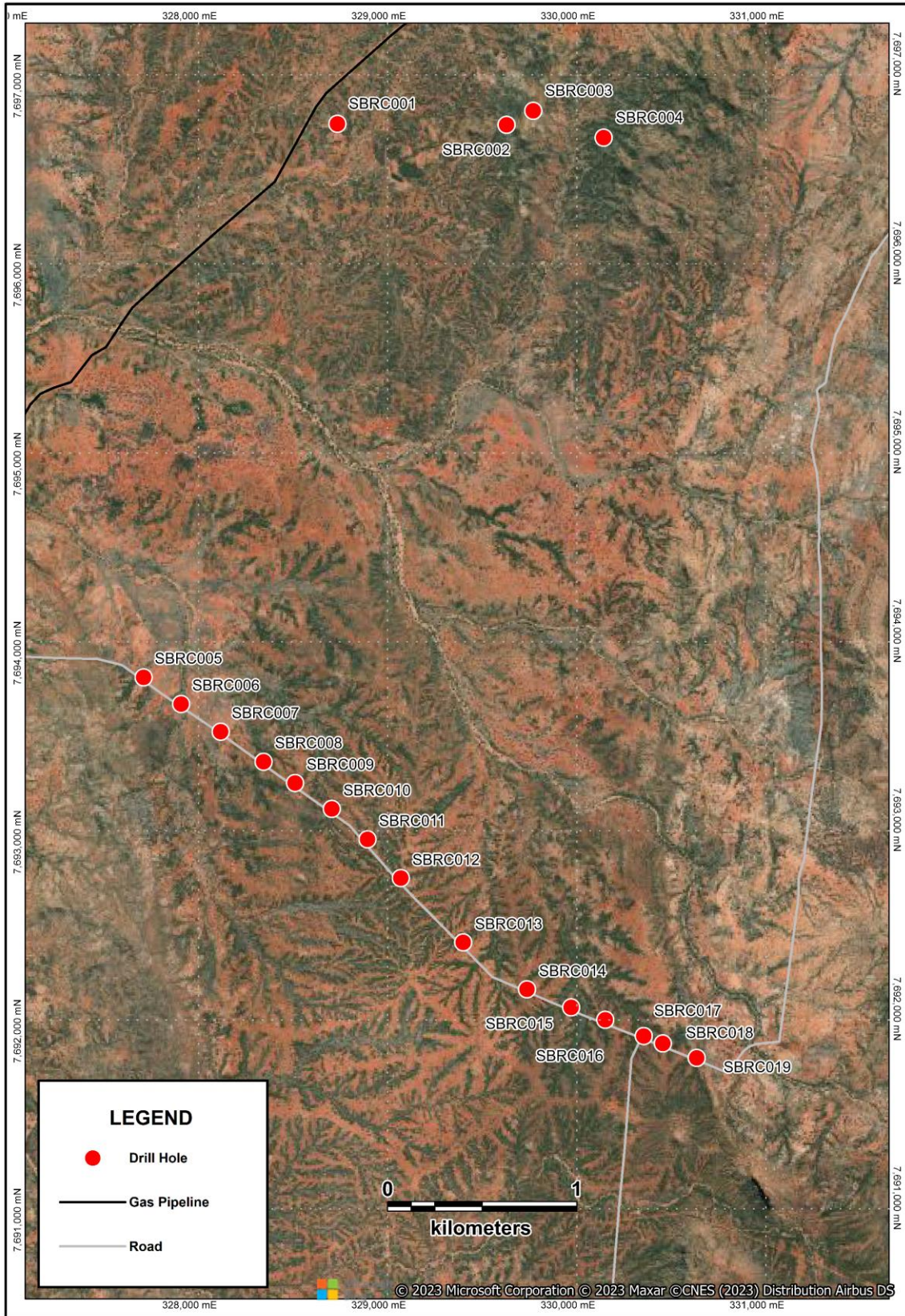
[Figure 2] Sybella ANSTO Mineralogical Study: BSE micrograph showing bastnasite-synchysite(Ce) within a composite fragment showing bastnasite and synchysite(Ce) intergrown with hematite, thorite, rutile/anatase and biotite.

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[Figure 3] Sybella ANSTO Preliminary Leach Results: Percentage dissolution of rare earth elements from preliminary leach tests on a fine pulverized sample of surface granite using variety of sulphuric acid strengths - highlights the acid soluble character of the rare earth elements in the granite and strong dissolution of light rare earth elements and partial dissolution of the dysprosium and yttrium.

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[Figure 4] Sybella Project: Recent Red Metal drill hole locations on satellite image. Assay results are pending.

[Table 1] Sybella Project: Historic end of hole rare earth oxide assays from shallow, vertical dipping, percussion holes drilled as part of a regional seismic traverse completed by Geoscience Australia in 2007 (line GA 07-003).

Hole ID	MGAE	MGAN	Depth	Lithology	Pr <sub>6</sub> O <sub>11</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	NdPr kg/t
94-01_5890	330,655	7,691,784	12	Fresh Granite	66.45	254.28	208.38	NA	<b>0.32</b>
94-01_5895	330,470	7,691,861	13	Fresh Granite	78.53	297.43	171.94	NA	<b>0.37</b>
94-01_5903	330,174	7,691,981	20	Fresh Granite	61.62	237.95	120.7	NA	<b>0.30</b>
94-01_5908	329,989	7,692,058	13	Fresh Granite	78.53	302.1	165.11	NA	<b>0.38</b>
94-01_5914	329,767	7,692,149	16	Fresh Granite	78.53	282.27	105.9	NA	<b>0.36</b>
94-01_5920	329,550	7,692,250	22	Fresh Granite	48.33	202.95	85.4	NA	0.25
94-01_5925	329,408	7,692,390	16	Fresh Granite	61.62	227.45	109.32	NA	0.29
94-01_5932	329,210	7,692,588	8	Fresh Granite	54.37	184.29	81.99	NA	0.24
94-01_5937	329,072	7,692,732	13	Fresh Granite	59.2	195.96	101.34	NA	0.25
94-01_5944	328,891	7,692,945	16	Fresh Granite	82.16	278.77	112.73	NA	<b>0.36</b>
94-01_5950	328,710	7,693,103	14	Fresh Granite	66.45	250.78	108.18	NA	<b>0.32</b>
94-01_5956	328,514	7,693,240	7	Fresh Granite	89.41	316.09	146.89	NA	<b>0.40</b>
94-01_5961	328,351	7,693,355	15	Fresh Granite	61.62	232.11	145.75	NA	<b>0.29</b>
94-01_5968	328,122	7,693,516	11	Fresh Granite	71.28	262.44	168.53	NA	<b>0.33</b>
94-01_5974	327,925	7,693,654	12	Fresh Granite	32.62	116.64	72.88	NA	0.15
94-01_5980	327,730	7,693,794	17	Fresh Granite	51.95	204.12	150.31	NA	0.25

NA = Not Assayed

[Table 2] Sybella Project: Red Metal 2023 drill collar summary.

HOLE_ID	Easting	Northing	RL	Dip	Azim_True	Depth
SBRC001	328733	7696746	416	-60	95.3	120
SBRC002	329627	7696741	430	-60	85	120
SBRC003	329769	7696815	433	-60	242.3	120
SBRC004	330141	7696673	434	-60	151.3	120
SBRC005	327709	7693817	415	-60	95.3	120
SBRC006	327907	7693676	415	-60	95.3	120
SBRC007	328116	7693530	415	-60	95.3	120
SBRC008	328343	7693371	416	-60	95.3	120
SBRC009	328510	7693258	420	-60	95.3	120
SBRC010	328704	7693121	422	-60	95.3	120
SBRC011	328892	7692960	426	-60	95.3	120
SBRC012	329068	7692755	427	-60	95.3	120
SBRC013	329398	7692415	425	-60	95.3	120
SBRC014	329736	7692167	428	-60	95.3	120
SBRC015	329969	7692071	428	-60	95.3	120
SBRC016	330149	7692006	428	-60	95.3	120
SBRC017	330353	7691920	428	-60	95.3	120
SBRC018	330454	7691880	429	-60	95.3	120
SBRC019	330633	7691804	428	-60	95.3	120

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This announcement was authorised by the Board of Red Metal. For further information concerning Red Metal's operations and plans for the future please refer to the recently updated web site or contact Rob Rutherford, Managing Director at:

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www.redmetal.com.au



Rob Rutherford  
Managing Director



Russell Barwick  
Chairman

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### Competent Persons Statement

The information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Robert Rutherford, who is a member of the Australian Institute of Geoscientists (AIG). Mr Rutherford is the Managing Director of the Company. Mr Rutherford 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" (the JORC Code). Mr Rutherford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**Appendix 1: Table 1 Sybella Project - JORC 2012 sampling techniques and data**

Criteria	JORC 2012 Explanation	Commentary
<b>Sampling Techniques</b>	Nature and quality of sampling	<i>Wide spaced, reverse circulation percussion (RCP) holes designed to test the extent of shallow rare earth mineralisation in granite to about 100m below surface. A total of 19 wide spaced holes were drilled to assess REO grade and mineralogical variation across the granite. The method of drilling is considered to be of an acceptable quality for evaluating the REO mineralisation within the granite and reporting of exploration results. Assay results are pending.</i>
	Include reference to measures taken to ensure representativity samples and the appropriate calibration of any measurement tools or systems used.	<i>Sampling for geochemical analysis was continuous down the length of each hole with 1 sample collected every metre and composited over 6 metres for initial assay using a total acid digest.</i>
	Aspects of the determination of mineralisation that are Material to the Public Report.	<i>428 samples have been submitted for analyses. Assay results are due in about 4-6- weeks.</i>
<b>Drilling Technique</b>	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	<i>A track mounted, conventional RCP rig with a face sampling bit was utilised from surface to end of hole.  The RC hole was surveyed using an Axis Champ north seeking gyro.</i>
<b>Drill Sample Recovery</b>	Method of recording and assessing core and chip sample recoveries and results assessed.	<i>Sample recoveries were visually estimated and recorded for each metre. Chip recovery overall was very good with most intervals logged as 100% recovery with local areas reduced to 60%.</i>
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	<i>Depths are checked against depths marked on the sample bags and rod counts are routinely performed by the drillers.</i>
	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.	<i>Assay results pending, but no bias is expected sample recovery was very good</i>
<b>Logging</b>	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.	<i>Qualitative codes and descriptions are used to record geological data such as lithology, weathering, hardness prior to sampling.</i>
	Whether logging is qualitative or quantitative in nature. Core photography	<i>Chip trays are photographed.</i>
	The total length and percentage of the relevant intersections logged.	<i>The total lengths of all holes have been geologically logged.</i>
<b>Sub-sampling techniques and sample preparation</b>	If core, whether cut or sawn and whether quarter, half or all core taken.	<i>No core was collected.</i>
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<i>All 6 metre composite samples were prepared with standard crush/split/pulverisation techniques at ALS Mt Isa (methods SPL-21 / PUL-23).</i>
	Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.	<i>Once results from the 6 metres composites have been received, selected assaying of individual metre samples will be analysed to check representativity of the composite sampling method.</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>A total of 24 field duplicate samples were inserted through the assay batch at a rate of about 1 in 24 samples.</i>
Whether sample sizes are appropriate to the grain size of the material being sampled.	<i>6 metre composite sampling is considered appropriate for REE minerals &lt;2mm grainsize evenly distributed throughout the granite. Checks sampling using the one metre samples is planned.</i>	

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Criteria	JORC 2012 Explanation	Commentary												
<b>Quality of assay data and laboratory tests</b>	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	<i>All 428 samples were sent to ALS for analysis of REES and other traces Ba Ce Cr Cs Dy Er Eu Ga Gd Hf Ho La Lu Nb Nd Pr Rb Sm Sn Sr Ta Tb Th Tm U V W Y Yb Zr using Method ME-MS81d that utilises lithium borate fusion prior to acid dissolution and ICP-MS analysis. This method provides the most quantitative analytical approach for a broad suite of trace elements including REE. Whole rock elements from an ICP-AES analysis on the same fusion were also added.</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>No geophysical tools were used to report element concentrations at Sybella.</i>												
	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.	<i>A total of 8 blanks and 16 certified reference standards were inserted evenly throughout the assay batch. Assay results are pending</i>												
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	<i>Result reviewed by Exploration Manager and the Managing Director</i>												
	The use of twinned holes.	<i>No holes have been twinned</i>												
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<i>Primary data is stored both in its source electronic form, and, where applicable, on paper. Assay data is retained in both the original certificate (.pdf) form, where available, and the text files received from the laboratory. Primary data was entered in the field into a portable logging device using standard drop-down codes. At this early stage, text data files are exported and stored in an Excel/Access database. MapInfo software is used to check and validate drill-hole data.</i>												
	Discuss any adjustment to assay data.	<p><i>Assay results from Red Metal drilling are pending. Historic rare earth results from Geoscience Australia drill data are report as rare earth oxides using the following conversions.</i></p> <table border="1"> <thead> <tr> <th>Element</th> <th>Element Oxide</th> <th>Factor</th> </tr> </thead> <tbody> <tr> <td>Nd</td> <td>Nd<sub>2</sub>O<sub>3</sub></td> <td>1.1664</td> </tr> <tr> <td>Pr</td> <td>Pr<sub>6</sub>O<sub>11</sub></td> <td>1.2082</td> </tr> <tr> <td>Y</td> <td>Y<sub>2</sub>O<sub>3</sub></td> <td>1.2699</td> </tr> </tbody> </table>	Element	Element Oxide	Factor	Nd	Nd <sub>2</sub> O <sub>3</sub>	1.1664	Pr	Pr <sub>6</sub> O <sub>11</sub>	1.2082	Y	Y <sub>2</sub> O <sub>3</sub>	1.2699
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<b>Location of data points</b>	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.	<i>The collar positions were surveyed by Handheld GPS using GDA94, Zone54 datum. GPS locations are accurate to about 3m.</i>												
	Specification of the grid system used.	<i>GDA94_Zone54 datum.</i>												
	Quality and adequacy of topographic control.	<i>Topographic relief has been extracted using the ELVIS digital terrain information at Geoscience Australia</i>												
<b>Data spacing and distribution</b>	Data spacing for reporting of Exploration Results.	<i>A total of 19 holes were drilled across the granite to assess REO grade and mineralogical variation and depth extent.</i>												
	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.	<i>The drill pierce point spacing is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation</i>												
	Whether sample compositing has been applied.	<i>RC chip bags were spear sampled every metre and composited every 6 metres for the initial REE analysis. Two separate cyclone split samples were collected for each metre and stored on site for subsequent use and analysis.</i>												

Criteria	JORC 2012 Explanation	Commentary
<b>Orientation of data in relation to geological structure</b>	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<i>The granite displays a deformation foliation that varies from steep west dipping to sub-vertical. Where access permitted, the drilling was oriented 60 degrees to the east across the dominant fabric.</i>
	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.	<i>Insufficient data to determine bias at this point</i>
<b>Sample security</b>	The measures taken to ensure sample security.	<i>Chips were logged and sampled in the field with chip tray records and two split one metre samples collected and stored at Red Metal's Cloncurry base for future reference. 6 metres composite samples were transported directly to ALS Mt Isa for preparation and analysis.</i>
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	<i>No external audits have been undertaken at this early stage.</i>

### Appendix 1: Table 2 Sybella Project - JORC 2012 reporting of exploration results

Criteria	JORC 2012 Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	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.	<i>The Sybella drilling is located within EPM 28001 situated in the Mount Isa region of north-west Queensland. EPM 28001 is owned 100% by Red Metal Limited. A landholder conduct and compensation agreement has been established with the pastoral lease holder at May Down and Ardmore Stations. An ancillary exploration access agreement has been established with the Kalkadoon native title party.</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>The tenement is in good standing.</i>
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	<i>No previous drilling by other parties has been directed towards REE, however the granite of interest was regularly drilled and sampled as part of a regional seismic traverse by Geoscience Australia in 2007 (line GA 07-003). End of hole assays from this drill traverse provide regularly spaced REE analyses across the granite, highlighting its grade in fresh rock (Figure 1, Table 1). A total of 16 shallow holes intersected the targeted granite with many holes ending in greater than 0.3kg/t neodymium plus praseodymium (NdPr) oxide (Figures 1, Table 1 of this announcement).</i>
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	<i>Red Metal's experienced exploration team speculate the potential for a new granite-hosted, weak-acid soluble REO deposit style that can be broadly compared with other granite-hosted, weak-acid soluble mineral deposit types such as the giant Rossing and Husab soluble uranium deposits or the Morenci soluble copper deposits. These large tonnage deposit types are characterised by low-grades of soluble ore minerals hosted in low-acid consuming granite rock and can be bulk mined and then extracted using simple coarse grind and low-acid leach processing.</i>
<b>Drill hole information</b>	A summary of all information material to the understanding of the exploration results including a tabulation of survey information for all Material drill holes:	<i>Refer to Figure 4 and Table 2 in this announcement for a summary of Red Metal's 2023 drill hole collar data.</i>
<b>Data aggregation methods</b>	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.	<i>No data aggregation methods have been applied</i>
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	<i>No metal equivalent values have been applied</i>
<b>Relationship between</b>	These relationships are particularly important in the reporting of Exploration	<i>At this stage of exploration insufficient data exists to confidently estimate true widths.</i>

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Criteria	JORC 2012 Explanation	Commentary
<b>mineralisation widths and intercept lengths</b>	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').	
<b>Diagrams</b>	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.	<i>Refer Figures 1 to 4, Table 1 and Table 2 to this announcement.</i>
<b>Balanced reporting</b>	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.	<i>See text to this announcement</i>
<b>Other substantive exploration data</b>	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.	<p><i>A preliminary mineralogical study undertaken for Red Metal by ANSTO Minerals (ANSTO), show most of the rare earth elements within a typical fresh surface sample of the granite occur within the highly soluble fluoro-carbonate minerals bastnasite and synchysite (Figure 2).</i></p> <p><i>Although subject to further detailed metallurgical studies, a single leach test by ANSTO on a finely pulverized surface sample of the fresh granite show 89% of the light rare earth oxide (REO) can be dissolved from the granite rock within a short time period using a mild concentration of sulphuric acid (40kg/tonne at 70 degrees for 6 hours, Figure 3). The preliminary ANSTO work also show a REO product can be rapidly precipitated from the leach solution using oxalate precipitant and the host granite and leach solution have low thorium and low uranium contents.</i></p>
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	<p><i>Assays results from the Red Metal proof-of-concept program are due in the next 6-8weeks.</i></p> <p><i>If positive, step-out drilling to define the bulk resource potential and extent of the higher-grade zones is planned. Core drilling for metallurgical samples is required to validate recoveries, the granites bond work index and leach properties for varying grid sizes and acid concentrations.</i></p>

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