ASX ANNOUNCEMENT 24 August 2022

Wildcat hole finds gold and REE on Comet

Marmota Limited (ASX: MEU) ("Marmota")

Marmota (ASX:MEU) is very pleased to announce results from the first drilling carried out by *any* company ever on the Comet (West) Tenement EL 6084, located to the south of Aurora Tank [see Fig. 1] .

Accelerated Discovery Initiative (ADI) Program on Comet

- First drilling ever (apparently by anyone) on the Comet (West) tenement EL 6084.
- 7 reconnaissance holes drilled on Comet as part of ADI program.
- Single isolated wildcat hole intersects gold (1.3 g/t over 4m) at 44m from surface …
  …. and highly elevated REE
- Potential for a new discovery
- Hidden at surface: no gold-in-calcrete expression of gold at surface

Marmota drilled 7 reconnaissance holes on the Comet (West) tenement [see the blue dots • in Fig. 1]. These were the first 7 holes ever drilled on the tenement shown in Fig. 1. One of the holes [Hole 22ADIRC017] intersected significant gold at 44 m downhole, averaging 1.3 g/t gold over the 4m composite interval. The hole is located *en échelon* with the Aurora Tank gold discovery and the Mars gold deposit to the NE [see Fig. 1]. The same hole is also highly anomalous in REE (Rare Earth Elements). For a first pass drill program, with no gold-in-calcrete anomaly at surface, and with just 7 holes on a new tenement, it appears as an extremely promising start.

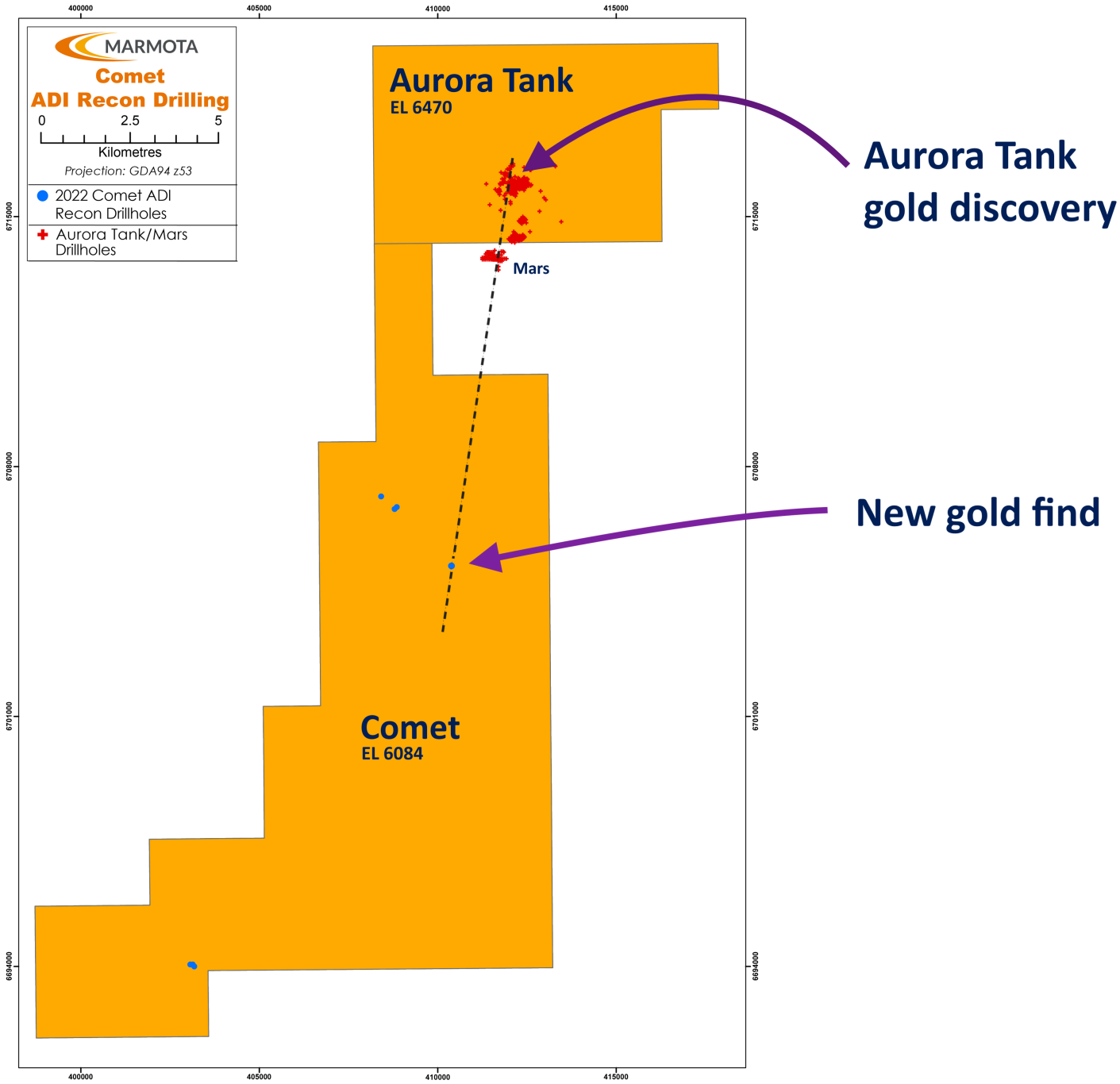

Figure 1: **New gold find in line with Aurora Tank gold discovery and Mars deposit**

Table 1 Comet EL 6084 Reconnaissance RC Drilling: June 2022

Significant Gold Intersections > 1 g/t Au [over 4m or larger intervals]

Hole ID	Easting	Northing	DIP	AZM	EOH	Depth From (m)	Depth To (m)	Intercept Width (m)	Au g/t
22ADIRC017	410,396	6,705,209	-90	0	72m	44	48	4 m	1.3

REE

The same hole is also highly anomalous in Rare Earth Elements, recording a TREO of 808 ppm over 4m (from 32m); 731 ppm over 4m (from 20m), and featuring thick zones of 36m @ 408ppm (from 12m) including 20m @ 532 ppm (from 12m). Geological logging indicates the rare earths are hosted in saprolitic clays from 12 metres which then transitions into heavily weathered gneiss from 31m downhole.

[TREO is the sum of the oxides of the so-called heavy rare earths elements (HREO) and the so-called light rare earths elements (LREO).
See page 10 for details of calculation.]

ADI Program

The above exploration work is jointly funded by the SA Government under a $225,000 grant awarded to Marmota under the *Accelerated Discovery Initiative* (ADI) [ASX:MEU 24 June 2020, 23 June 2022]. The program involved a small number of holes drilled on two tenements located to the south of Marmota's Aurora Tank gold discovery (Woorong Downs and Comet). As far as Marmota is aware, this program included the first ever exploration drilling by any company on the Comet (West) Tenement (EL6084) located south of Aurora Tank [Fig. 1].

Additional Detail

Geology

The surficial geology of the Comet (West) tenement is dominated by aeolian sand cover. It features low dunes forming on the margins of the few areas of weathered sub cropping basement or silcrete capped hills that form the scattered topographic highs. The landscape is otherwise low relief. Basement geology appears similar to Aurora Tank and is predominately of the Archaean Mulgathing complex rock which are the host of to the majority of Au mineralisation within the region. The weathered clays derived from the Mulgathing complex is the host to the recently discovered ionic clay-hosted REE discovery reported by Petratherm (ASX:PTR).

The geology of 22ADIRC017 consists of, starting from surface, 4m of aeolian sands underlain by saprolitic clays and weathered gneiss extending to 44m downhole, including the range with the highly anomalous REE results. The 4m at 1.3 g/t Au occurs in a mixed interval of less weathered to fresh gneiss.

Comment

Marmota Chairman, Dr Colin Rose, said:

" This is a highly unusual, intriguing and exciting outcome for a recon program.
To put this in context, the usual path to finding gold is to start with some surface expression of gold (*e.g.* calcrete sampling) that then guides drilling.
Here, by contrast, there is no expression of gold in the surface calcrete sampling.

Finding significant gold over 1 g/t on a single hole in the middle of nowhere, without surface expressions or other guiders … is probabilistically like finding a needle in a haystack. It is so unusual that prior to releasing these results, Marmota asked the laboratory to duplicate the assay tests from a fresh sample: the lab pulverised the entire 2kg sample bag collected over the 4m interval, and took a new pulp to re-test from fresh. It confirmed the same result. There is no doubt that there is significant gold in the sample. More intriguingly, it is located on the same trend line as the Aurora Tank gold discovery and the Mars gold deposit 10km to the NE, with the ground on Comet inbetween never tested or drilled.

Marmota is seeking to carry out follow-up programs as a priority, both here at Comet, and to follow up the high-grade 18g/t gold extensions just discovered at Aurora Tank [ASX:MEU 18 Aug 2022]. More detail is expected to follow shortly.

The highly anomalous REE result (from the same drill hole) and thick REE intersections in clays highlight the prospectivity of Marmota's tenements for rare earth elements. Marmota will also be addressing our REE strategy in the near future. "

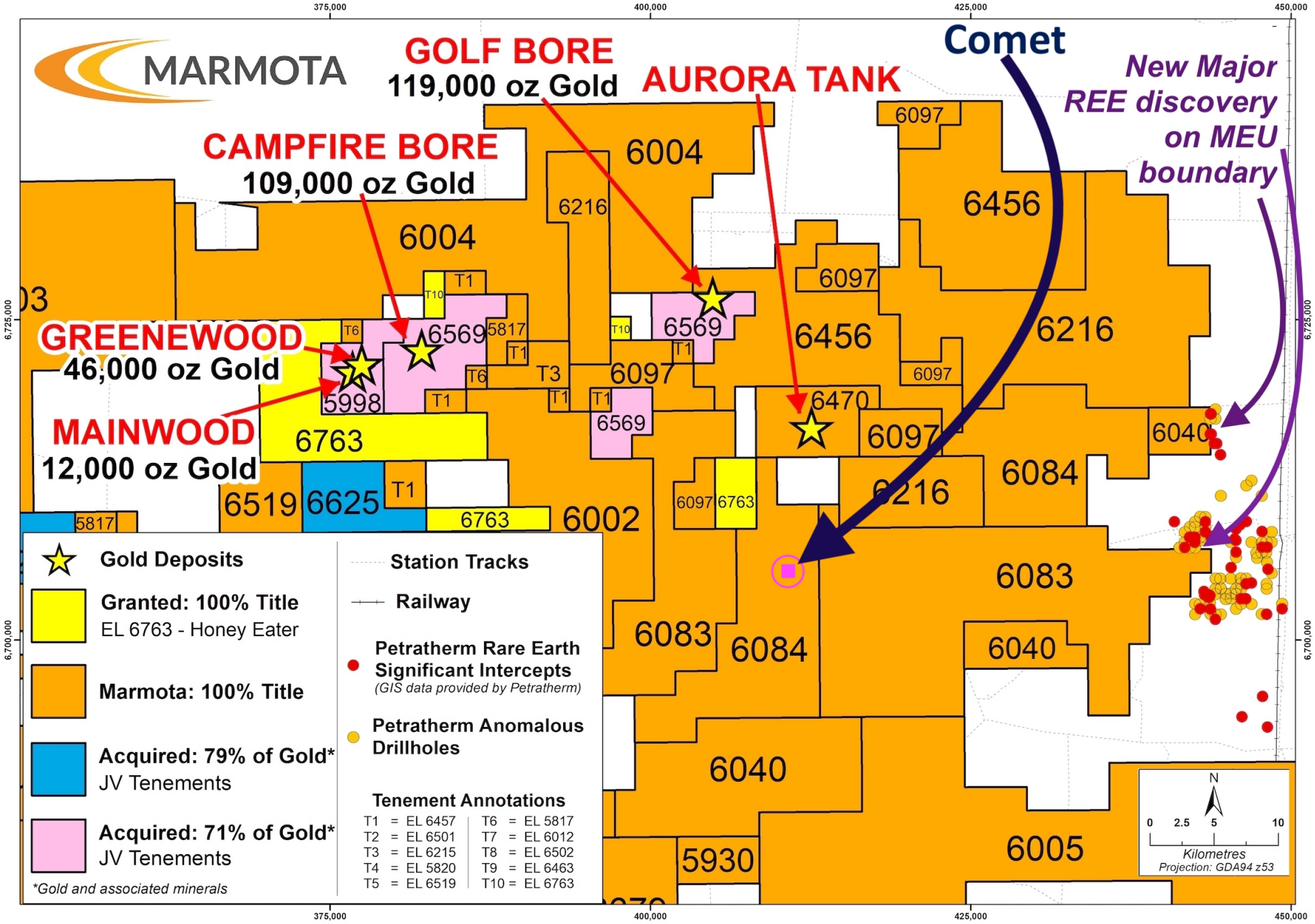

Figure 2: Location of Comet tenement relative to surrounding Marmota tenements, including Aurora Tank gold discovery

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About Marmota Limited

Marmota Limited (ASX: MEU) is a South Australian mining exploration company, focused on gold, copper and uranium. Gold exploration is centred on the Company's dominant tenement holding in the highly prospective and significantly underexplored Gawler Craton, near the Challenger gold mine, in the Woomera Prohibited Defence Area. The Company's copper project is based at the Melton project on the Yorke Peninsula. The Company's uranium JORC resource is at Junction Dam adjacent to the Honeymoon mine.

For more information, please visit: www.marmota.com.au

Competent Persons Statement

Information in this Release relating to Exploration Results is based on information compiled by Aaron Brown, who is a Member of The Australian Institute of Geoscientists. He has sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Brown consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

Where results from previous announcements are quoted, Marmota confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

For the purpose of ASX Listing Rule 15.5, the Board has authorised for this announcement to be released.

APPENDIX 1 JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized 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.*	• A total of 20 RC holes were drilled in June 2022 • Samples were collected at 1m intervals from the drilling cyclone and stored in separate bags at the drill site. • Composite 4m samples were collected using a 50mm PVC tube 'spear' to collect representative samples from bags. Composite samples were an average weight of 2 kg which were pulverized to produce sub samples for lab assay [samples pulverized to produce a 25 g sample for Aqua Regia Digest and analysed by Inductively Coupled Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry]. • Only laboratory assay results were used to compile the table of intersections that appears in the report.
Drilling techniques	• *Drill type (e.g. 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).*	• Drill Method was Reverse Circulation drilling. • Hole diameters are 146.5 mm
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Drillholes and sample depths were recorded in hard copy format during drilling including description of lithology and sample intervals. • Qualitative assessment of sample recovery and moisture content of drill samples was recorded. • Sample recoveries were generally high, and moisture in samples minimal. In some instances, where ground water influx was high, wet/moist samples were collected. • The sample system cyclone was cleaned at the end of each hole and as required to minimise up-hole and cross-hole contamination. • No relationship is known to exist between sample recovery and grade, in part due to in-ground variation in grade. A potential bias due to loss/gain of fine/coarse material is not suspected. Drilling was halted between each interval to make sure the hole was cleared out before commencing the next interval.

Criteria	JORC Code explanation	Commentary
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All samples were geologically logged by Marmota geologists. The holes have not been geotechnically logged. • Geological logging is qualitative. • Chip trays containing 1m geological subsamples were collected. • 100% of any reported intersections in this announcement have had geological logging completed.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Composite samples averaging 2.4 kg were collected for laboratory assay. Samples were collected with a 50mm tube by diagonally spearing individual samples within bags. • It is considered representative samples were collected after homogenizing of sample through drilling cyclone and unbiased spearing of samples in bags. • Laboratory sample preparation includes drying and pulverizing of submitted sample to target of p80 at 75 um. • No samples checked for size after pulverizing failed to meet sizing target in the sample batches relevant to the report. • Duplicate samples were introduced into the sample stream by the Company.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Bureau Veritas Minerals in Adelaide were used for analytical work. Samples were analysed in the following manner for samples collected from exploratory holes on Comet and Woorong Downs tenements: • Aqua Regia Digest: Analysed by Inductively Coupled Plasma Mass Spectrometry for Au, Ag, As, Bi, Ca, Cd, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Pd, Pt, S, Sb, Se, Sn, Sr, Th, Te, U, V, W, Zn, Sc, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm, Yb & Lu • Lithium Borate Fusion: Analysed by Inductively Coupled Plasma Mass Spectrometry for Ce, Sc, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm, Yb & Lu • For all samples, the Company introduced QA/QC samples at a ratio of one QA/QC sample for every 30 drill samples. The laboratory introduced additional QA/QC samples (blanks, standards, checks) at a ratio of greater than 1 QA/QC sample for every 10 drill samples Both the Company and laboratory QA/QC samples indicate acceptable levels of accuracy and precision have been established. • Duplicates were introduced into the sample stream by the Company. The laboratory completed repeat assays on various samples.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>• Standard samples were introduced into the sample stream by the Company, while the laboratory completed standard assays also.</td></tr>
<tr><td>Verification of sampling and assaying</td><td>• The verification of significant intersections by either independent or alternative company personnel.
• The use of twinned holes.
• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.
• Discuss any adjustment to assay data.</td><td>• An alternative company representative has checked the calculation of the quoted intersections. No twinned holes were drilled in the program.
• Assays were reported in Elemental form and converted to relevant oxide using James Cook University's Element-to-stoichiometric oxide conversion factors:

<table>
<tr><th>Element</th><th>Oxide</th><th>Factor</th></tr>
<tr><td>Cerium</td><td>CeO_2</td><td>1.2284</td></tr>
<tr><td>Dysprosium</td><td>Dy_2O_3</td><td>1.1477</td></tr>
<tr><td>Erbium</td><td>Er_2O_3</td><td>1.1435</td></tr>
<tr><td>Europium</td><td>Eu_2O_3</td><td>1.1579</td></tr>
<tr><td>Gadolinium</td><td>Gd_2O_3</td><td>1.1526</td></tr>
<tr><td>Holmium</td><td>Ho_2O_3</td><td>1.1455</td></tr>
<tr><td>Lanthanum</td><td>La_2O_3</td><td>1.1728</td></tr>
<tr><td>Lutetium</td><td>Lu_2O_3</td><td>1.1371</td></tr>
<tr><td>Neodymium</td><td>Nd_2O_3</td><td>1.1664</td></tr>
<tr><td>Praseodymium</td><td>Pr_6O_{11}</td><td>1.2082</td></tr>
<tr><td>Scandium</td><td>Sc_2O_3</td><td>1.5338</td></tr>
<tr><td>Samarium</td><td>Sm_2O_3</td><td>1.1596</td></tr>
<tr><td>Terbium</td><td>Tb_4O_7</td><td>1.1762</td></tr>
<tr><td>Thulium</td><td>Tm_2O_3</td><td>1.1421</td></tr>
<tr><td>Yttrium</td><td>Y_2O_3</td><td>1.2699</td></tr>
<tr><td>Ytterbium</td><td>Yb_2O_3</td><td>1.1387</td></tr>
</table>

• TREO is the sum of the oxides of the so-called heavy rare earths elements (HREO) and the so-called light rare earths elements (LREO).

• TREO = $CeO_2 + Dy_2O_3 + Er_2O_3 + Eu_2O_3 + Gd_2O_3 + Ho_2O_3 + La_2O_3 + Lu_2O_3 + Nd_2O_3 + Pr_6O_{11} + Sm_2O_3 + Tb_4O_7 + Tm_2O_3 + Y_2O_3 + Yb_2O_3$</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• For Exploration holes on Comet and Woorong Downs, drill hole coordinate information was collected using a Handheld GPS system with an autonomous accuracy of ± 3 m utilising GDA 94 Zone 53. • Down hole surveys were undertaken at 30m intervals downhole, or as requested by the geologist. • Area is approximately flat lying and topographic control uses SRTM 90 DEM.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Drill hole spacing is irregular as indicated in Appendix 2.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Drill lines were new reconnaissance holes. Therefore, a sampling bias should not have occurred.
Sample security	• *The measures taken to ensure sample security.*	• Company staff collected all laboratory samples. • Samples submitted to the laboratory were transported and delivered by Company staff.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audit of data has been completed to date.

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	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Comet (EL6084) and Woorong Downs (EL6083) are 100% owned by Marmota Limited. These EL's are located approximately 100 km southwest of Coober Pedy in South Australia. • There are no third party agreements, non-government royalties, historical sites or environmental issues. • Exploration is conducted within lands of the Antakirinja Matu-Yankunytjatjara Native Title Determination Area. • The tenements are in good standing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No previous exploration drill holes appear to have been carried out on the Comet tenement EL6084.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• All drilling occurred within geology of the Christie Domain of the western Gawler Craton. The Christie Domain is largely underlain by late Archaean Mulgathing Complex which comprises meta-sedimentary successions interlayered with Banded Iron Formations (BIF), chert, carbonates and calc-silicates. • Marmota is targeting Challenger-style Late Archaean gold whilst also considering occurrence of a variety of other mineralisation styles which may exist in the tenement area.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• The required information on drill holes is incorporated into Appendix 2 to the ASX Release.

Data aggregation methods	• *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.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the*	• Any intersections are calculated by simple averaging of 4m Composite Samples. • Where aggregated intercepts are presented in the report, they may include shorter lengths of high-grade mineralisation; these shorter lengths are also tabulated. • No metal equivalents are reported.

Criteria	JORC Code explanation	Commentary
	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 mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration 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').*	• Drill coverage is considered sufficient to establish approximate true widths due the current geological understanding of mineralisation dip and strike • Mineralisation intersections are downhole lengths; exact true widths are unknown but are similar to the intersection lengths as the mineralised zones are approximately normal to hole inclinations.
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.*	• See Figures within ASX release
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• A cut-off grade of 1 g/t (1000 ppb) gold was applied in reviewing assay results and deemed to be appropriate at this stage in reporting of exploration results. • Reporting is considered balanced.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• See attached release • Marmota is currently reviewing results received to date and preparing additional work programs and additional infill and extensional drilling.

APPENDIX 2 Drillhole collar summary: June 2022 RC drilling

Comet (EL 6084) and Woorong Downs (EL 6083) : ADI recon holes

Hole ID	Tenement	Easting [GDA2020 z53]	Northing [GDA2020 z53]	RL	Dip	Azimuth (Mag)	EOH Depth
22ADIRC001	Woorong Downs	404,771	6,704,798	159	-90	0	49m
22ADIRC002	Comet	403,179	6,694,004	169	-60	150	84m
22ADIRC003	Comet	403,137	6,694,059	170	-60	150	84m
22ADIRC004	Comet	403,070	6,694,058	170	-60	150	84m
22ADIRC005	Woorong Downs	401,096	6,695,897	167	-60	150	67m
22ADIRC006	Woorong Downs	401,178	6,696,013	169	-60	150	96m
22ADIRC007	Woorong Downs	400,012	6,697,597	174	-90	0	72m
22ADIRC008	Woorong Downs	399,200	6,700,844	188	-60	150	84m
22ADIRC009	Woorong Downs	402,676	6,701,323	175	-60	150	84m
22ADIRC010	Woorong Downs	402,576	6,701,208	183	-60	150	84m
22ADIRC011	Woorong Downs	402,489	6,701,120	185	-60	150	90m
22ADIRC012	Woorong Downs	400,789	6,700,798	187	-60	150	80m
22ADIRC013	Woorong Downs	400,765	6,700,842	187	-60	150	84m
22ADIRC014	Woorong Downs	400,739	6,700,893	187	-60	150	90m
22ADIRC015	Woorong Downs	399,008	6,702,008	180	-90	0	70m
22ADIRC016	Woorong Downs	399,826	6,701,989	177	-90	0	72m
22ADIRC017	Comet	410,396	6,705,209	163	-90	0	72m
22ADIRC018	Comet	408,414	6,707,167	158	-90	0	72m
22ADIRC019	Comet	408,851	6,706,869	157	-60	150	84m
22ADIRC020	Comet	408,791	6,706,810	157	-60	150	84m