High-Grade Tantalum Assays at Monte Alto Project

- Assay results confirm high-grade tantalum mineralisation of up to **880ppm** at the Monte Alto project
- Weighted average tantalum grade over 472 meters of diamond core intercepts was **305ppm**
- Tantalum is recognised as a critical mineral by both the USA and EU, essential for semiconductors, capacitors, super-alloys and medical devices
- Monte Alto has recorded exceptional rare earth grades of up to 39.1% TREO, with key elements up to 68,341ppm NdPr, 2,837ppm dysprosium, 544ppm terbium, 15,031ppm niobium, 352ppm scandium, 880ppm tantalum and 5,191ppm uranium
- Of the 50 critical minerals identified by the United States as vital to economic and national security, 18 are found in high concentrations in the ultra-high-grade hard rock mineralisation

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Brazilian Rare Earths Limited (ASX: BRE) (BRE) is pleased to announce high-grade tantalum assays from the hard rock ultra-high grade REE-Nb-Sc-U mineralisation at the Monte Alto project in Bahia, Brazil.

High-grade tantalum assays of up to 880ppm were returned, with a weighted average tantalum grade of 305ppm[1]. The reported tantalum assays are from 29 diamond core holes totalling 4,663 meters for which BRE has previously reported REE-Nb-Sc-U assay results[2].

Significant tantalum intercepts from Monte Alto diamond drilling include:

- **13.2m at 610ppm Ta_2O_5** from 53.5m (MADD0042)
- **5.4m at 542ppm Ta_2O_5** from surface (SD0003)
- **18m at 503ppm Ta_2O_5** from 23m (MADD0044)
- **19.8m at 506ppm Ta_2O_5** from 104.2m (MADD007)
- **7m at 501ppm Ta_2O_5** from surface (MADD002)
- **11.7m at 467ppm Ta_2O_5** from 0.7m (MADD003)
- **6m at 455ppm Ta_2O_5** from 51.5m (SD0008)
- **23m at 360ppm Ta_2O_5** from 84m (MADD0010)
- **47.1m at 344ppm Ta_2O_5** from 137.6m (MADD0099)

Tantalum Market Applications

Tantalum is a rare, heat and corrosion resistant metal vital for modern electronics, including semiconductors and capacitors, superalloys and medical devices.

The electronics market is the largest demand driver for tantalum as it is a key element for manufacturing capacitors and high-power resistors used in smartphones, laptops and automotive electronics. In addition, tantalum is used for semi-conductors for thin-film resistors and as a diffusion barrier in copper wiring.

In the aerospace and defence sectors, tantalum is essential in aerospace alloys for jet engine components and gas turbines, enhancing performance at high temperatures. Tantalum is biocompatible and is used for orthopaedic implants and diagnostic equipment in the medical sector.

Tantalum Market Size and Pricing [3]

The U.S. Geological Survey (USGS) estimates that the global mine production of tantalum in 2023 was ~2,400 tonnes. The largest producer of tantalum was the Democratic Republic of Congo (DRC) with a market share of 40%, followed by Rwanda at 22% and Brazil at 15%.

China dominates the processing of tantalum and is currently responsible for over 50% of global tantalum processing capacity. Kazakhstan accounts for nearly 15% of global processing capacity and the United States 5% capacity share.

In 2023, the USGS estimated that the average price of tantalum concentrate was $190 per kg of contained Ta_2O_5 content (tantalum concentrates ~32% Ta_2O_5).

Global Supply Chain Risks

Tantalum's strategic importance is recognised by both the United States and European Union, which classify it as a critical mineral vital for their technology sectors, defence capabilities and economic growth.

The United States and European Union classification:

- United States: Tantalum is a critical mineral essential for economic and national security in the "Critical Minerals List" published by the U.S. Department of the Interior.[4]
- European Union: Tantalum is recognised in the EU's list of Critical Raw Materials due to its high economic importance and supply risk.[5]

The tantalum market faces supply chain vulnerabilities with geopolitical instability in key producing regions like the DRC and Rwanda, along with ethical concerns related to conflict minerals, illegal mining and changing international trade policies.

In 2024, the United States applied U.S. Section 301 tariffs of 25% on tantalum imports, under Section 301 of the Trade Act of 1974, from countries identified with unfair trade practices.[6] The U.S. Department of Defense also restricts procurement of tantalum oxides, metals, and alloys sourced from adversarial foreign suppliers.

Monte Alto Project

The Monte Alto ultra-high-grade hard rock REE-Nb-Sc-Ta-U mineralisation is mostly covered by an extensive surface deposit of high-grade monazite sand in free-dig saprolite.

This high-grade monazite sand deposit extends from surface to depths of ~75 meters and is interpreted to have been formed from extensive weathering of the ultra-high grade basement rock (with rare earth and other elements weathered into a stable monazite mineral sand). The maiden JORC-compliant inferred resource estimate for the Monte Alto monazite sand deposit, completed in May 2023, stands at 25.2 million tonnes at 1% total rare earth oxides (TREO). Notably, this includes a very high-grade monazite zone containing 4.1 million tonnes at 3.2% TREO[7].

Monazite, a phosphate-based rare earth mineral, typically contains 50-60% total rare earth elements, including valuable neodymium and praseodymium assemblages. Monazite concentrates are internationally traded, with prices reaching US$5,759 per tonne as of September 30, 2024 (Shanghai Metals Market, 54% min, CIF).

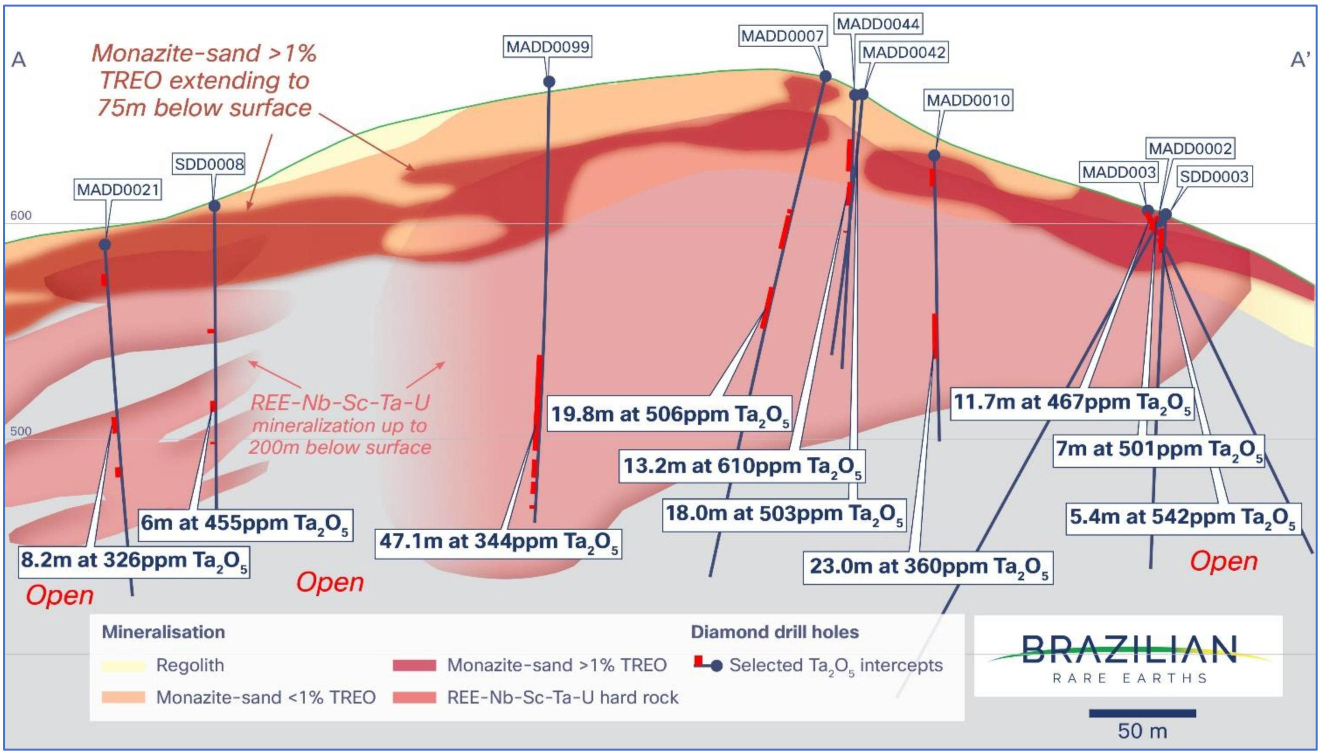

Figure 1: Cross section view of Monte Alto with significant tantalum intercepts[1]

The ultra-high-grade hard rock mineralisation at Monte Alto contains excellent grades of tantalum, neodymium, praseodymium, dysprosium, terbium, niobium, scandium, and uranium. Furthermore, the hard rock mineralisation also has highly significant grades of the valuable heavy rare earth elements gadolinium, lutetium, and erbium, alongside very high grades of the heavy rare earth element yttrium.

Apart from uranium, all these elements are classified as 'critical' by both the USA and EU due to their strategic importance and the vulnerability of global supply chains. Of the 50 critical minerals or elements identified by the United States as vital to economic and national security, 18 are found in high concentrations in the ultra-high-grade mineralisation at Monte Alto[8].

Next Steps

- Regional Monte Alto 'district' exploration update
- First phase metallurgical study results
- Assays pending for 8,009m of diamond drilling at the Monte Alto project
- Exploration drilling at Sulista and Pele projects for high-grade monazite sands and ultra-high grade REE-Nb-Sc-Ta-U mineralisation

Authorised for release by the Managing Director and CEO.

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Sign up to our investor hub at investors.brazilianrareearths.com

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References and notes

1. Average Monte Alto Ta_2O_5 grade is from 29 diamond core holes totalling 4,663 meters, and is the length weighted average grade
2. Refer BRE's Original ASX Announcements dated 1 February 2024, 6 June 2024 and 26 August 2024 for previously reported exploration results. Other than the items noted below, BRE confirms that it is not aware of any new information or data that materially affects the information included in the Original ASX Announcements:
   (a) The Original ASX Announcements did not include significant intercepts for Ta_2O_5, Gd_2O_5, Er_2O_5, Lu_2O_3, Y_2O_3 which are included in this announcement
   (b) A change in the methodology for calculating true widths has resulted in minor changes to the true widths reported in this announcement (refer Appendix E) versus the true widths reported in the Original ASX Announcements. These changes do not impact true width weighted average grades.
3. U.S. Geological Survey, Mineral Commodity Summaries 2024. "Tantalum."
4. https://www.federalregister.gov/documents/2022/02/24/2022-04027/2022-final-list-of-critical-minerals
5. https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en.
6. Office of the United States Trade Representative Notice of Modification: China's Acts, Policies and Practices Related to Technology Transfer, Intellectual Property and Innovation
7. Refer Prospectus dated 13 November 2023 (released on the ASX Announcements Platform on 19 December 2023). BRE confirms that all material assumptions and technical parameters underpinning the mineral resource estimate in the Prospectus continue to apply and have not materially changed.
8. Of the 50 critical minerals or elements identified by the United States as vital to economic and national security, the 18 critical minerals or elements found in high concentrations in the ultra-high grade mineralisation are Neodymium, Praseodymium, Dysprosium, Terbium, Gadolinium, Lutetium, Erbium, Yttrium, Niobium, Tantalum, Scandium, Cerium, Lanthanum, Samarium, Europium, Holmium, Thulium and Ytterbium.

Forward-Looking Statements and Information

This Announcement may contain "forward-looking statements" and "forward-looking information", including statements and forecasts which include (without limitation) expectations regarding industry growth and other trend projections, forward-looking statements about the BRE's Projects, future strategies, results and outlook of BRE and the opportunities available to BRE. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "is expecting", "budget", "outlook", "scheduled", "target", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might", or "will" be taken, occur or be achieved. Such information is based on assumptions and judgments of BRE regarding future events and results. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, targets, performance or achievements of BRE to be materially different from any future results, targets, performance or achievements expressed or implied by the forward-looking information.

Forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and management of the Company. Key risk factors associated with an investment in the Company are detailed in Section 3 of the Prospectus dated 13 November 2023. These and other factors could cause actual results to differ materially from those expressed in any forward-looking statements.

Forward-looking information and statements are (further to the above) based on the reasonable assumptions, estimates, analysis and opinions of BRE made in light of its perception of trends, current conditions and expected developments, as well as other factors that BRE believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Although BRE believes that the assumptions and expectations reflected in such forward-looking statements and information (including as described in this Announcement) are reasonable, readers are cautioned that this is not exhaustive of all factors which may impact on the forward-looking information.

The Company cannot and does not give assurances that the results, performance or achievements expressed or implied in the forward-looking information or statements detailed in this Announcement will actually occur and prospective investors are cautioned not to place undue reliance on these forward-looking information or statements.

Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Persons Statement

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information compiled or reviewed by Mr Adam Karst P.G, a Competent Person who is a registered member of the Society of Mining, Metallurgy and Exploration which is a Recognised Overseas Professional Organisation. Mr Karst has sufficient experience that is relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Karst consents to the inclusion in this report of the results of the matters based on his information in the form and context in which it appears

Appendix A: BRE Critical Minerals

Element	Market Applications	EU Critical Mineral	USA Critical Mineral
60 **Nd** Neodymium 144.242	Neodymium is used for permanent magnets used in electric vehicles, robotics, wind turbines, electronic equipment and defence applications	☑	☑
59 **Pr** Praseodymium 140.908	Praseodymium is used for permanent magnets used in electric vehicles, robotics, wind turbines, electronic equipment and defence applications	☑	☑
66 **Dy** Dysprosium 162.5	Heavy rare earth: Dysprosium is used for high temperature and coercivity permanent magnets used in electric vehicles, robotics, wind turbines and defence	☑	☑
65 **Tb** Terbium 158.925	Heavy rare earth: Terbium is used for high temperature and coercivity permanent magnets used in electric vehicles, robotics, wind turbines and defence	☑	☑
64 **Gd** Gadolinium 157.25	Heavy rare earth: Gadolinium is is crucial to high-tech applications across medical imaging, energy systems, and data storage	☑	☑
71 **Lu** Lutetium 174.967	Heavy rare earth: Lutetium is vital rare earth element for medical diagnostics, cancer treatment, and advanced laser applications	☑	☑
68 **Er** Erbium 167.259	Heavy rare earth: Erbium has unique optical and electronic properties that are critical for fiber-optics, lasers, and nuclear reactor technologies	☑	☑
39 **Y** Yttrium 88.906	Heavy rare earth: Yttrium is essential for high-tech applications, including phosphors, LEDs, superconductors, aerospace alloys, lasers and solid-oxide fuel calls	☑	☑
41 **Nb** Niobium 92.906	Niobium is used as a micro alloying element for high strength steels and superalloys	☑	☑
73 **Ta** Tantalum 180.948	Tantalum is used in semi-conductors, capacitors, super-alloys and medical devices	☑	☑
21 **Sc** Scandium 44.956	Scandium is used in high performance aluminium-scandium alloys to enhance strength to weight ratios	☑	☑
92 **U** Uranium 238.029	The primary use of uranium is as fuel for nuclear reactors, generating electricity through nuclear fission		

Note: This is a sub-section of the minerals and elements that has been discovered to date at Monte Alto

Appendix B: Monte Alto Assays

As of the date of this announcement, assays have been received for 4,663m of diamond drilling at the Monte Alto project. Significant intercepts from the diamond drilling at Monte Alto are reported in Appendix E. Summary statistics for selected individual REOs are presented below.

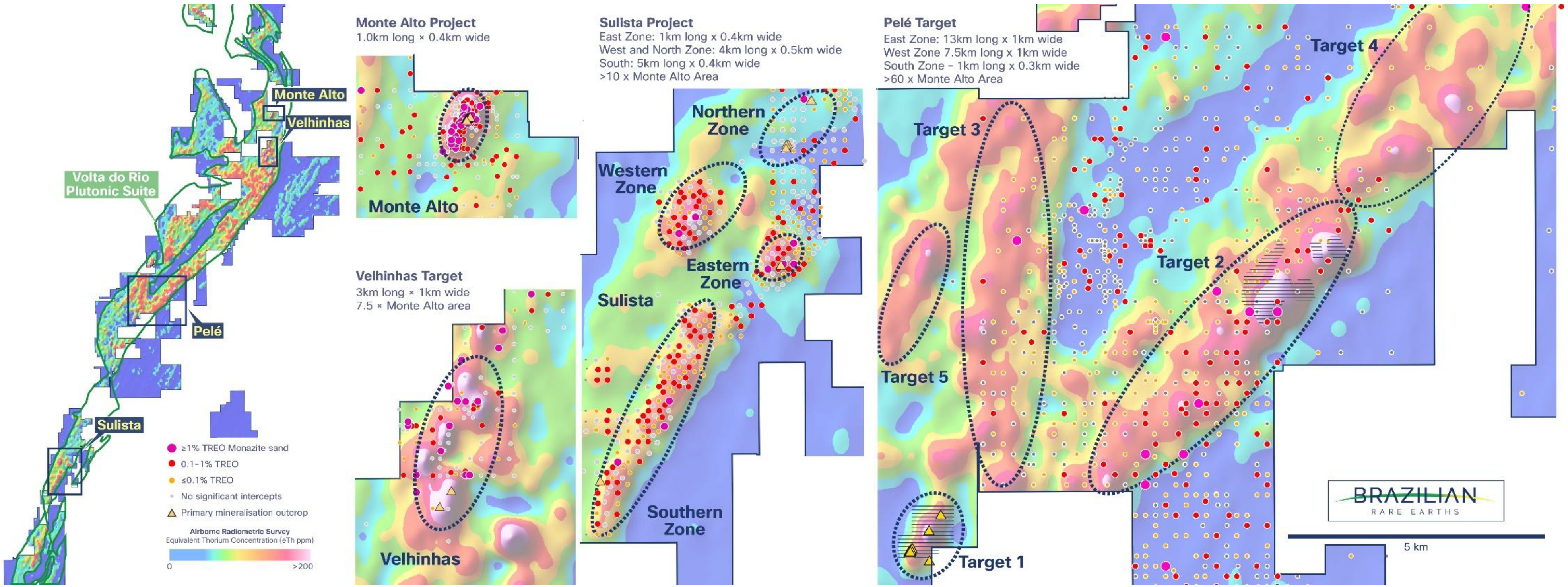
	Monte Alto *(n= 513)*												
	TREO (%)	Nd_2O_3 (ppm)	Pr_6O_{11} (ppm)	Dy_2O_3 (ppm)	Tb_4O_7 (ppm)	Gd_3O_2 (ppm)	Lu_2O_3 (ppm)	Er_2O_3 (ppm)	Y_2O_3 (ppm)	Nb_2O_5 (ppm)	Sc_2O_3 (ppm)	Ta_2O_5 (ppm)	U_3O_8 (ppm)
Wtd. Avg	**16.4**	**19,769**	**7,294**	**1,120**	**207**	**1,593**	**53.5**	**523**	**5,218**	**4,989**	**142**	**305**	**1,947**
Mean	15.8	18,779	6,931	1,097	203	1,547	54.2	517	5,185	4,850	155	296	2,039
Maximum	39.1	49,865	17,912	2,837	544	4,005	134.3	1,340	13,229	14,349	352	880	5,191
Median	14.9	17,200	6,289	988	183	1,411	52.9	479	4,948	4,246	185	264	2,237
Minimum	0.5	176	58	16	3	17	1.3	8	56	14	2	0	56
CV	0.6	0.65	0.65	0.64	0.66	0.64	0.61	0.64	0.63	0.71	0.51	0.71	0.59

Appendix C: Market Prices

All prices quoted in US$	Nd_2O_3	Pr_6O_{11}	Dy_2O_3	Tb_4O_7	Gd_3O_2	Lu_2O_3	Er_2O_3	Y_2O_3	Nb_2O_5	Sc_2O_3	Ta_2O_5	U_3O_8
Price per ppm	**$0.06**	**$0.06**	**$0.25**	**$0.85**	**$0.03**	**$0.77**	**$0.04**	**$0.006**	**$0.06**	**$0.73**	**$0.25**	**$0.18**
Price per kg	$61	$61	$254	$850	$26	$767	$44	$6	$57	$732	$251	$181

Spot market prices as quoted from Shanghai Metals Market (excluding U_3O_8) and UxC (U_3O_8), at September 30th, 2024

Appendix D: BRE exploration projects [1]



Note [1] Refer to End Notes for details of previously reported exploration results

Appendix E: Monte Alto Significant Intercepts

Significant diamond drilling intercepts for previously announced holes at Monte Alto:

Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	TREO (%)	Nd_2O_3 (ppm)	Pr_6O_{11} (ppm)	Dy_2O_3 (ppm)	Tb_4O_7 (ppm)	Gd_3O_2 (ppm)	Lu_2O_3 (ppm)	Er_2O_3 (ppm)	Y_2O_3 (ppm)	Nb_2O_5 (ppm)	Sc_2O_3 (ppm)	Ta_2O_5 (ppm)	U_3O_8 (ppm)
MADD0002	0.0	7.0	7.0	6.7	21.0	22,587	8,812	1,375	263	1,918	63.3	632	6,656	8,052	85	501	2,597
MADD0003	0.7	12.4	11.7	8.8	23.6	27,443	10,222	1,576	305	2,218	75.3	732	7,432	8,015	199	467	2,987
MADD0005	51.4	55.0	3.6	2.1	2.6	3,259	1,110	257	47	316	16.4	136	1,374	813	159	48	693
and	78.6	81.0	2.4	1.4	3.1	3,803	1,314	264	46	336	16.6	137	1,335	983	139	60	1,043
MADD0006	2.4	5.1	2.7	1.6	15.4	17,435	6,536	985	172	1,412	45.9	438	4,201	4,223	118	261	1,683
MADD0007	67.0	69.0	2.0	0.6	5.5	6,907	2,345	457	83	630	24.5	227	2,238	1,723	97	99	686
and	70.0	86.0	16.0	5.2	11.4	13,380	5,412	795	151	1,148	42.1	391	3,931	3,561	125	213	1,371
and	104.2	124.0	19.8	6.4	26.3	31,279	11,996	1,883	374	2,696	95.7	940	9,096	8,369	203	506	3,378
MADD0010	84.0	107.0	23.0	2.6	18.9	21,791	8,052	1,389	284	1,969	75.1	698	7,113	5,847	196	360	2,796
including	91.0	100.0	9.0	1.0	28.5	33,722	12,376	2,100	462	3,074	111.9	1,068	10,901	9,211	217	568	3,871
MADD0011	19.0	33.0	14.0	2.1	11.0	13,242	4,877	840	148	1,180	48.5	429	4,534	3,263	177	196	1,851
MADD0012	77.0	82.0	5.0	3	5.4	7,301	2,631	284	59	510	11.5	120	1,342	905	35	39	1,116
MADD0013	4.6	23.0	18.4	17	15.4	21,210	7,994	859	174	1,424	33.6	361	3,321	2,616	74	151	1,302
including	4.6	5.2	0.6	0.6	21.3	26,500	10,070	1,700	298	2,340	67.2	768	7,565	15,026	122	845	1,760
MADD0015	12.0	18.0	6.0	5.6	9.8	7,655	2,800	516	97	692	26.8	251	2,470	2,849	100	168	1,415
including	12.8	13.5	0.8	0.7	26.8	33,600	12,310	2,200	422	3,060	99.9	1,047	10,991	14,275	352	845	4,595
and	26.9	51.6	24.7	3.7	15.6	17,709	6,559	1,059	196	1,473	61.4	513	5,302	4,346	208	269	2,510
and	58.8	76.3	17.5	2.6	14.4	16,262	6,132	873	159	1,349	49.1	430	4,640	4,046	177	234	2,370
MADD0017	10.4	18.0	7.7	2	7.4	7,837	2,797	453	87	646	23.2	228	2,242	1,776	48	113	769
MADD0018	9.6	21.0	11.4	4.3	12.6	15,240	5,445	862	166	1,211	45.9	423	4,393	3,479	93	222	1,628
including	17.0	18.0	1.0	0.4	33.5	42,313	15,343	2,433	487	3,303	124.8	1,171	12,006	11,717	248	743	5,192
MADD0019	4.2	12.4	8.1	7.6	10.5	11,399	4,186	650	118	901	28.4	307	3,123	5,349	88	311	689
MADD0021	17.9	24.0	6.1	5.5	9.8	12,242	4,533	765	145	1,052	33.6	355	3,323	3,407	91	217	776
and	90.0	98.2	8.2	7.3	18.8	22,518	8,218	1,358	241	1,910	63.4	638	6,118	5,264	159	326	2,169

Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	TREO (%)	Nd_2O_3 (ppm)	Pr_6O_{11} (ppm)	Dy_2O_3 (ppm)	Tb_4O_7 (ppm)	Gd_3O_2 (ppm)	Lu_2O_3 (ppm)	Er_2O_3 (ppm)	Y_2O_3 (ppm)	Nb_2O_5 (ppm)	Sc_2O_3 (ppm)	Ta_2O_5 (ppm)	U_3O_8 (ppm)
and	115.3	120.4	5.2	4.6	16.1	19,186	7,293	1,110	196	1,561	54.6	510	5,050	4,153	175	270	1,882
MADD0022	110.0	112.0	2.0	1.4	3.0	3,960	1,323	236	43	335	11.5	110	1,101	688	45	46	255
MADD0024	54.2	54.8	0.6	0.5	20.9	25,621	9,273	1,369	259	1,939	75.7	676	6,882	5,479	212	373	2,468
and	117.7	119.6	1.9	1.6	4.4	5,442	1,917	393	68	501	21.1	201	2,028	1,139	72	64	514
and	150.3	152.5	2.3	1.9	24.8	30,081	10,873	1,739	296	2,413	82.0	760	7,907	6,383	210	404	2,584
and	161.3	163.0	1.8	1.5	14.4	16,689	6,138	929	166	1,373	50.6	453	4,717	3,864	204	245	2,148
MADD0029	54.0	55.7	1.7	1.4	10.0	11,462	4,247	664	120	978	35.2	313	3,213	2,773	140	187	1,600
and	69.0	71.0	2.0	1.6	10.3	11,953	4,424	727	131	1,016	36.8	338	3,402	3,100	100	188	1,451
and	113.0	116.6	3.5	2.3	21.2	26,265	9,549	1,477	270	2,083	66.9	662	6,268	6,092	189	364	2,533
MADD0042	53.5	66.7	13.2	11.9	34.7	42,504	15,577	2,493	474	3,502	116.2	1,200	11,447	10,016	217	610	3,943
including	55.0	56.0	1.0	0.9	39.1	48,389	17,730	2,837	544	4,005	134.1	1,339	12,890	10,412	230	631	4,230
and	81.0	82.0	1.0	0.9	5.8	7,856	2,954	365	68	539	16.2	169	1,761	1,380	34	69	740
MADD0043	91.0	100.0	9.0	6.9	6.7	9,060	3,126	454	83	657	19.1	203	2,079	869	43	55	575
MADD0044	23.0	41.0	18.0	16.2	20.7	25,873	9,662	1,476	269	2,051	65.1	674	6,752	8,195	140	503	1,998
including	27.0	37.8	10.8	9.7	27.9	36,208	13,425	2,060	378	2,862	91.6	945	9,497	11,261	196	689	2,761
including	32.2	32.8	0.6	0.5	29.2	38,040	14,529	2,199	392	3,057	85.1	975	9,632	14,098	291	880	3,477
MADD0045	29.0	44.0	15.0	13.6	14.1	15,201	5,846	854	151	1,194	40.5	387	4,021	3,847	177	261	1,620
including	38.9	43.4	4.5	4.1	21.2	24,269	9,417	1,355	242	1,877	65.8	608	6,403	5,464	269	382	2,574
and	67.9	73.0	5.1	4.6	20.3	26,010	9,531	1,385	256	1,933	65.2	658	6,443	6,450	146	389	2,250
MADD0046	42.6	43.2	0.6	0.5	13.7	16,537	5,660	931	170	1,268	47.3	421	4,290	4,114	143	258	1,604
and	61.3	74.0	12.8	9.8	19.4	23,835	8,262	1,365	238	1,922	63.9	624	6,356	5,339	189	323	2,414
including	65.0	69.4	4.3	3.3	31.2	39,481	13,755	2,314	403	3,212	97.4	1,052	10,079	8,957	196	523	3,524
MADD0099	137.6	184.7	47.1	27.7	19.6	24,128	8,655	1,325	246	1,884	63.9	623	6,036	5,307	176	344	2,385
including	168.0	184.0	16.0	9.4	29.1	37,243	13,219	1,985	361	2,839	88.9	923	8,525	7,935	129	502	2,985
and	189.0	198.0	9.0	5.3	4.8	5,485	2,044	326	59	462	17.1	157	1,626	1,184	53	72	578
and	200.0	206.0	6.0	3.5	7.7	9,628	3,472	586	103	817	27.7	273	2,721	1,955	58	116	889
and	211.6	213.3	1.7	1.0	18.8	24,266	8,558	1,338	241	1,881	61.0	632	6,157	5,317	85	323	2,198
SDD0003	0.0	5.4	5.4	5.2	18.7	21,353	8,262	1,253	231	1,773	55.4	583	6,209	9,170	103	542	2,029

Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	TREO (%)	Nd_2O_3 (ppm)	Pr_6O_{11} (ppm)	Dy_2O_3 (ppm)	Tb_4O_7 (ppm)	Gd_3O_2 (ppm)	Lu_2O_3 (ppm)	Er_2O_3 (ppm)	Y_2O_3 (ppm)	Nb_2O_5 (ppm)	Sc_2O_3 (ppm)	Ta_2O_5 (ppm)	U_3O_8 (ppm)
SDD0006	101.0	107.0	6.0	1.7	11.5	13,088	4,650	865	156	1,084	47.2	415	4,194	3,472	167	219	2,012
and	121.5	149.5	28.0	7.8	15.6	17,788	6,471	1,149	214	1,531	61.2	552	5,541	4,748	201	298	2,463
SDD0007	60.0	62.0	2.0	1.8	1.8	2,483	754	271	45	294	16.0	147	1,457	828	114	31	433
and	93.4	98.5	5.1	4.5	3.8	4,894	1,710	311	56	420	16.3	149	1,521	1,239	57	72	631
and	112.5	113.5	1.0	0.9	25.0	32,317	11,448	1,921	360	2,656	96.4	870	8,742	7,530	179	450	3,094
SDD0008	51.5	57.5	6.0	5.4	26.7	31,845	11,779	1,864	316	2,666	88.5	823	8,383	7,758	201	455	3,044
and	92.1	100.2	8.1	7.2	17.6	20,663	7,655	1,196	211	1,761	60.9	553	5,844	5,191	170	292	2,473
SDD0009	118.0	124.4	6.4	1.9	19.8	24,153	8,965	1,397	236	2,044	71.7	650	6,340	5,748	212	348	2,681
and	147.6	157.2	9.6	2.8	16.1	18,807	7,023	988	176	1,563	57.3	494	5,036	4,424	207	262	2,612
SDD0011	15.0	28.0	13.0	6.7	8.7	9,788	3,678	605	111	831	30.7	301	3,266	4,763	105	287	645
and	83.9	86.9	2.9	1.5	19.2	25,076	8,845	1,371	221	1,932	58.0	565	5,804	5,575	181	286	2,038
and	94.0	97.7	3.7	1.9	16.2	20,051	7,372	993	184	1,487	49.2	464	4,969	4,793	122	261	1,937

Notes:

Exploration results for the drill holes reported in the above table were reported in BRE's ASX Announcements dated 1 February 2024, 6 June 2024 and 26 August 2024 (Original ASX Announcements). Other than the items noted below, BRE confirms that it is not aware of any new information or data that materially affects the information included in the Original ASX Announcements:

(a) The Original ASX Announcements did not include significant intercepts for Ta_2O_5, Gd_2O_5, Er_2O_5, Lu_2O_3, Y_2O_3 which are included in the table above.
(b) A change in the methodology for calculating true widths has resulted in immaterial changes to the true widths reported in the above table from the true widths reported in the Original ASX Announcements. These changes to the reported true widths do not impact true width weighted average grades.

Appendix F: JORC Table

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 (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.* • *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 (eg. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.*	The reported drill results are obtained from diamond core drilling. Diamond drill holes were drilled with 3m run lengths in fresh rock and 1.5m run length in saprolite. Sonic core holes were drilled using 2m run lengths. Drill core was collected directly from a core barrel and placed in pre-labelled core trays. Run interval depths were measured and recorded. Drill core was transported to the BRE's exploration facility where it was measured for recovery, geologically logged, photographed, and marked up for sampling. Selected sample intervals considered lithological boundaries (i.e. sample was to, and not across, major contacts). Diamond core was HQ or NQ size. The diamond core sample intervals were a minimum of 0.6m and a maximum of 1.6m. Diamond drill core was cut using a core saw, and sonic core with a knife, into two quarter core samples with one summited for assay and the other retained for archive. The remaining half core remained in the core tray for further testing. Cuts were made along a line drawn to ensure samples were not influenced by the distribution of mineralisation within the drill core (i.e. the cut line bisected mineralized zones). The split for assay was placed in pre-numbered sample bags for shipment to the laboratory for ICPMS analysis. Auger samples were recovered directly from the auger bucket and placed onto a polypropene tarp, photographed, and geologically logged in the field. The samples were transported to the BRE's exploration facility where they were sieved through a 10 mm by 10 mm screen. The oversized material was mechanically pulverized prior to being re-combined with the undersized material on a plastic tarp. The sample was homogenised by working the material back and forth on tarp and was then split into two portions: one for assay and another for archive. The split for assay was placed in pre-numbered sample bags for shipment to the laboratory for ICPMS analysis. The other portion was bagged and stored onsite in a secure warehouse as archive material. The collected sample interval lengths are 1 m with some variation depending on sample recovery and geological unit boundaries. Grab samples were collected from REE-Nb-Sc-U boulders, subcrop and outcrop using a rock hammer to obtain representative rock fragments with an average weight of 0.6kg. Rock fragments were placed in pre-numbered sample bags in the field and then transported to the Company's exploration facility for shipment to the laboratory for ICPMS analysis.

Criteria	JORC Code explanation	Commentary
		All drilling provided a continuous sample of mineralized zone. All mineralisation that is material to this report has been directly determined through quantitative laboratory analytical techniques that are detailed in the sections below.
Drilling techniques	• *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).*	Core drilling was conducted by BRE using a Royal Eijkelkamp CompactRotoSonic XL170 MAX DUO rig to drill vertical holes with an operational depth limit of 200m and an average depth of 112m; and using an I-800 DKVIII-12 rig to drill angled holes with an operational depth limit of 500m and an average depth of 160m. Drill core was recovered from surface to the target depth. All diamond drill holes utilized a 3.05m long single wall barrel and were collared with HQ and were transitioned to NQ once non-weathered and unoxidized bedrock was encountered. Water is used as a drilling fluid as necessary and to aid in extruding material from the core barrel. Oriented core was collected on selected angled drill holes using the REFLEX ACT III tool by a qualified geologist at the drill rig. The orientation data is currently being evaluated. Sonic drilling was conducted by the Company and utilized a 2m long single wall barrel to obtain 0.076m diameter core, or a 2m long double wall core barrel to obtain 0.068m diameter core. The sonic drill string is advanced until either rock or hard boulders are encountered, or operational limits are reached. Outer casing is used when the water table or poor recovery is encountered. Water is used as a drilling fluid as necessary and to aid in extruding material from the core barrel. The sonic drill rig has a maximum operational depth limit of 60m. The average sonic hole depth is 35m. Sonic core is not oriented. Auger drilling was conducted by BRE using a 0.05m diameter x 0.4m long clay soil auger bucket with 0.5m to 1m long rods rotated by a gasoline engine with hand-holds. The auger bucket was advanced by adding rods until either groundwater was reached (which degrades sample quality) or refusal due to rock or hard saprolite. Auger drilling has a maximum operational limit of 30 m deep. The average auger hole depth is 18m. All augur holes are drilled vertically.
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.*	The sonic and diamond core was transported from the drill site to the logging facility in covered boxes with the utmost care. Once at the logging facility, broken core was re-aligned to its original position as closely as possible. The recovered drill core was measured, and the length was divided by the interval drilled and expressed as a percentage. This recovery data was recorded in the database. Samples collected from auger drilling were checked by the technician at the rig to ensure they represented of the interval drilled. When fall-back was noted, fallen material was removed before sample collection. If poor recovery is encountered drill speed was

Criteria	JORC Code explanation	Commentary
		decreased. If poor recovery at the beginning of a hole was persistent, the hole was redrilled at a nearby location. For sonic drilling, casing is used to minimize fall back. Recoveries for all core drilling are consistently good. There does not appear to be a relationship between sample recovery and grade or sample bias due to preferential loss or gain of fine or coarse material with these drilling and sampling methods.
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.*	Data was collected in sufficient detail to support Mineral Resource estimation studies. Drill core was logged at BRE's exploration facility by the logging geologist. Sonic core was photographed wet in core boxes immediately before sampling. Core photos show sample numbers, drill run lengths for material in the core box. Each auger drillhole interval was logged in the field by the onsite technician. Each auger sample was arranged on a plastic sheet to align with the likely in-situ position and was then photographed in its natural condition prior to transport to the exploration facility. Photos show auger hole number and drill run lengths. Logging included qualitive determinations of primary and secondary lithology units, weathering profile unit (mottled zone, lateritic zone, saprock, saprolite, etc.) as well as colour and textural characteristics of the rock. Quantitative measurements of structural and geophysical features were also measured. GPS coordinates as well as geological logging data for all drillholes were captured in a Microsoft Excel spreadsheet and uploaded to the project database in MXDeposit. All drill holes reported in this news release were logged entirely.
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.*	Core from sonic and diamond drilling was split to obtain quarter core sub-samples for assaying. Reported diamond core sample intervals were typically 1m in length with a minimum of 0.6m and a maximum of 1.6m. Interval lengths considered lithological boundaries (i.e. sample was to, and not across, major contacts). To avoid selection bias, the right of core was consistently sampled and the bottom half retained in the core tray for archiving. Each auger sample was sieved through a 10mm by 5mm screen. The oversized material mechanically pulverized prior to being re-combined with the undersized material on a plastic tarp. The sample material was homogenized by working it back and forth on the tarp, and then split using the cone and quarter method to produce sub-samples for assaying and archiving. Auger samples were processed with natural moisture content. Otherwise, samples too wet for effective screening were air dried naturally prior to processing. To minimize cross contamination sampling tools, such as the plastic tarp, screen, and cutting tools were cleaned using compressed air between samples.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>Field duplicates were completed at frequency 1:20 samples to evaluate the sample collection procedures to ensure representativeness and show good reproducibility. Duplicate analyses of coarse crush and pulp material were provided by SGS.

Core sub-samples submitted for assaying had an average weight of 1 kg. Grab samples had an average weight of 0.65 kg.

Submitted samples of all types have appropriate mass to represent the material collected which includes mega-enclaves of monazite cumulate REE-Nb-Sc-U mineralisation, microparticle to sand sized monazite grains, and ionic clay REE mineralisation.</td></tr>
<tr><td>Quality of assay data and laboratory tests</td><td>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.</td><td>Drill core, auger and grab samples collected by the Company were assayed by SGS Geosol in Vespasiano, Minas Gerais, Brazil, which is considered the Primary laboratory.

Samples were initially dried at 105 degrees Celsius for 24 hours. Samples were crushed to 75% passing the 3mm fraction and the weight was recorded. The sample was reduced on a rotary splitter and then 250g to 300g of the sample was pulverized to 95% passing 75 µm. Residues were stored for check analysis or further exploration purposes.

The assay technique used for REE was Lithium Borate Fusion ICP-MS (SGS Geosol code IMS95A). This is a total analysis of the REE. Elements analysed at ppm levels were as follows:

<table>
<tr><td>Ce</td><td>Co</td><td>Cs</td><td>Cu</td><td>Dy</td><td>Er</td><td>Eu</td><td>Ga</td></tr>
<tr><td>Gd</td><td>Hf</td><td>Ho</td><td>La</td><td>Lu</td><td>Mo</td><td>Nb</td><td>Nd</td></tr>
<tr><td>Ni</td><td>Pr</td><td>Rb</td><td>Sm</td><td>Sn</td><td>Ta</td><td>Tb</td><td>Th</td></tr>
<tr><td>Tl</td><td>Tm</td><td>U</td><td>W</td><td>Y</td><td>Yb</td><td></td><td></td></tr>
</table>

Overlimit samples were analysed at percentage levels using SGS Geosol analysis code IMS95RS

The assay technique used for major oxides and components was Lithium Borate Fusion ICP-OES (SGS Geosol code ICP95A). This is a total analysis for the elements analysed % and ppm (Ba, V, Sr, Zn, Zr) levels as listed below:

<table>
<tr><td>Al_2O_3</td><td>Ba</td><td>CaO</td><td>Cr_2O_3</td></tr>
<tr><td>Fe_2O_3</td><td>K_2O</td><td>MgO</td><td>MnO</td></tr>
<tr><td>Na_2O</td><td>P_2O_5</td><td>SiO_2</td><td>Sr</td></tr>
<tr><td>TiO_2</td><td>V</td><td>Zn</td><td>Zr</td></tr>
</table>

Analysis for Scandium (Sc) was made by 4-Acid ICP-AES Analysis (SGS Geosol code ICM40-FR).</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		Accuracy was monitored through submission of certified reference materials (CRMs) supplied by OREAS North America Inc. CRM materials (30a, 100a, 460, 463 and 465) cover a range of REE grades encountered on the project. CRM 465 has an equivalent grade of approximately 10% TREO and supports reliable analysis of high grade REE-Nb-Sc mineralisation detailed in this report. CRM were inserted within batches of core, sonic and auger drill samples, and grab samples, at a frequency of 1:20 samples. CRMs were submitted as "blind" control samples not identifiable by the laboratory and were alternated to span the range of expected grades within a group of 100 samples. Contamination was monitored by insertion of blank samples of coarse quartz fragments. Blanks were inserted within batches of sonic and auger drill samples, and grab samples, at a frequency of 1:40 samples. Blanks pass through the entire sample preparation stream to test for cross contamination at each stage. No laboratory contamination or bias were noticed. Precision and sampling variance was monitored by the collection 'Field duplicate' samples, predominantly from mineralised intervals, at the rate of 1:20 samples. Half core was split into two ¼ core samples to make field duplicate pairs that are analysed sequentially. The adopted QA/QC protocols are acceptable for this stage of exploration. Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and assay laboratory procedures. Levels of precision and accuracy are sufficient to allow disclosure of analysis results and their use for Mineral Resource estimation.
Verification of sampling and assaying	• *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.*	No independent verification of significant intersections was undertaken. Nineteen closely spaced twin holes were drilled using a sonic drill rig to verify the auger drilling and sampling methods. There does not appear to be a systematic bias associated with auger drill method. Mean assay values obtained by auguring are not likely to be higher or lower than values obtained by sonic drilling. All assay results are checked by the company's Principal Geologist. Logging for drillholes was directly uploaded to the project database hosed in the MXDeposit system. Assay data and certificates in digital format from the laboratory are directly uploaded to the project database. Rare earth oxide is the industry-accepted form for reporting rare earth elements. The following calculations are used for compiling REO into their reporting and evaluation groups: Note that Y_2O_3 is included in the TREO, HREO and MREO calculations.

Criteria	JORC Code explanation	Commentary

TREO (Total Rare Earth Oxide) = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Y_2O_3 + Lu_2O_3$.

HREO (Heavy Rare Earth Oxide) = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3$, $+ Y_2O_3 + Lu_2O_3$.

MREO (Magnet Rare Earth Oxide) = $Nd_2O_3 + Pr_6O_{11}Pr_6O_{11} + Tb_4O_7 + Dy_2O_3 + Gd_2O_3 + Ho_2O_3 + Sm_2O_3 + Y_2O_3$.

LREO (Light Rare Earth Oxide) = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$.

NdPr = $Nd_2O_3 + Pr_6O_{11}$.

NdPr% of TREO = $Nd_2O_3 + Pr_6O_{11}$/TREO x 100.

HREO% of TREO = HREO/TREO x 100.

Conversion of elemental analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors.

Element	***Factor***	***Oxide***
La	*1.1728*	La_2O_3
Ce	*1.2284*	Ce_2O_3
Pr	*1.2082*	Pr_6O_{11}
Nd	*1.1664*	Nd_2O_3
Sm	*1.1596*	Sm_2O_3
Eu	*1.1579*	Eu_2O_3
Gd	*1.1526*	Gd_2O_3
Tb	*1.1762*	Tb_4O_7
Dy	*1.1477*	Dy_2O_3
Ho	*1.1455*	Ho_2O_3
Er	*1.1435*	Er_2O_3
Tm	*1.1421*	Tm_2O_3
Yb	*1.1387*	Yb_2O_3
Lu	*1.1372*	Lu_2O_3
Y	*1.2699*	Y_2O_3

The process of converting elemental analysis of rare earth elements (REE) to stoichiometric oxide (REO) was carried out using predefined conversion factors on a spreadsheet. (*Source: https://www.jcu.edu.au/advanced-analytical-centre/services-and-resources/resources-and-extras/element-to-stoichiometric-oxide-conversion-factors)*

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.*	Diamond drill collars are located by a surveyor using RTK-GPS with centimetre scale accuracy. Auger drill hole collars and grab sample sites were located by a handheld GPS with accuracies <5m. Drill hole surveying was performed on each diamond hole using a REFLEX EZ-Trac multi-shot instrument. Readings were taken every 10 to 25 meters and recorded depth, azimuth, and inclination. Projected drill hole traces show little deviation from planned orientations. Downhole surveys are not collected for sonic and auger drill holes which are vertical and less than 30m (auger) or 60m (sonic). Therefore, drill hole deviation will result in errors that are not material to the reliability of drillhole trace projections. The accuracy of projected exploration data locations is sufficient for this stage of exploration and to support mineral resource estimation studies. The gird datum used is SIRGAS 2000 UTM 24S.Topographic control is provided by a DEM obtained from SRTM data at a lateral resolution of $30m^2$.
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.*	For selected areas at Monte Alto that host fresh rock REE-Nb-Sc-U mineralisation, the drill spacing is generally 20m to 80m along strike and down dip. This spacing is sufficient to determine continuity in geology and grade with sufficient resolution to support early-stage exploration and targeting. At all target areas laterally extensive REE enriched horizons are present in the regolith. These areas are tested by auger and sonic drilling at spacings ranging from approximately 80m to 400m in the north-south and east west directions. At Monte Alto, REE are predominantly hosted in the regolith by sand sized monazite grains distributed within a central high-grade zone. This zone is tested by auger and sonic drilling at 80 m grid spacings. For all regolith mineralisation styles, the drill spacing is sufficient to establish geology and grade continuity in accordance with Inferred classification criteria. Composite sample grades are calculated by generating length weighted averages of assay values.
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.*	The distribution of REE in the regolith horizons is largely controlled by vertical changes within the profile. Vertical drill holes intersect these horizons perpendicularly and obtain representative samples that reflect the true width of horizontal mineralisation. In regolith, auger and sonic drill hole orientations do not result in geometrically biased interval thickness. The distribution of mineralisation in fresh rock at Monte Alto is controlled by steeply dipping to sub vertical mega-enclaves of monazite cumulate that strike northwest. The angled drill holes were designed and oriented with inclinations ranging from -55 to -75 degrees to intersect these bodies as perpendicular as possible within the limitations of the drill rig. Vertical SSD series holes tend to intersect mineralisation at a highly oblique angle.

Criteria	JORC Code explanation	Commentary
		Grab samples are collected from single location points on outcropping material, or boulders, and do not represent a continuous sample along any length of the mineralised system.
Sample security	• *The measures taken to ensure sample security.*	After collection in the field, the auger and grab samples were placed in sealed plastic bags that were then placed into larger polyweave bags labelled with the sample IDs inside and transported to the Company's secure warehouse. Drill core samples were transported in their core boxes. A local courier transported the samples submitted for analysis to the laboratory. A copy of all waybills related to the sample forwarding was secured from the expediter. An electronic copy of each submission was forwarded to the laboratory to inform them of the incoming sample shipment. Once the samples arrived at the laboratory, the Company was notified by the laboratory manager and any non-compliance is reported. The laboratory did not report any issues related to the samples received.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The Company engaged the services of Telemark Geosciences to review the sampling and analysis techniques used at the Project, and to establish a "Standard Operating Procedures" manual to guide exploration. CSA Global Associate Principal Consultant, Peter Siegfried has toured the Company's exploration sites and facilities and conducted reviews of sampling techniques and data. The Company has addressed recommendations and feedback provided by CSA Global.

Section 2 Reporting of Exploration Results

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.*	The Project is 100% owned by, or to be acquired by, subsidiaries of Brazilian Rare Earths Limited (BRE), an Australian registered company. Located in the State of Bahia, Northeastern Brazil, the BRE Property consists of 262 granted exploration permits covering a land area of approximately 4,222 km^2. Permits are registered at Brazil's National Mining Agency The Project also includes four applications for mining permits and two disponibilidades, as well as an option (described in the prospectus as the Amargosa Option Agreement) to acquire three additional granted exploration permits. All exploration permits are held by the Company's Brazilian subsidiaries directly or are to be acquired through agreements with third parties as detailed in the BRE prospectus and

Criteria	JORC Code explanation	Commentary
		in the Company's ASX Announcement "BRE Expands Control over Rocha da Rocha Rare Earth Province" dated January 22, 2024 All mining permits in Brazil are subject to state and landowner royalties, pursuant to article 20, § 1, of the Constitution and article 11, "b", of the Mining Code. In Brazil, the Financial Compensation for the Exploration of Mineral Resources (Compensação Financeira por Exploração Mineral - CFEM) is a royalty to be paid to the Federal Government at rates that can vary from 1% up to 3.5%, depending on the substance. It is worth noting that CFEM rates for mining rare earth elements are 2%. CFEM shall be paid (i) on the first sale of the mineral product; or (ii) when there is mineralogical mischaracterization or in the industrialization of the substance, which is which is considered "consume" of the product by the holder of the mining tenement; or (iii) when the products are exported, whichever occurs first. The basis for calculating the CFEM will vary depending on the event that causes the payment of the royalty. The landowners royalties could be subject of a transaction, however, if there's no agreement to access the land or the contract does not specify the royalties, article 11, §1, of the Mining Code sets forth that the royalties will correspond to half of the amounts paid as CFEM. The exploration tenement (870.685/2021) that host the Monte Alto project that is the subject of this report is subject to an additional 2.5% royalty agreement in favour of Brazil Royalty Corp. Participações e Investimentos Ltda (BRRCP). The portion of exploration tenement (870.685/2021) that hosts the Monte Alto Deposit that is the subject of this report measures 53.26 km^2 and is not known to within any environmentally designated areas. The remainder of the tenement, measuring 84.17 km^2, falls within a State Nature Reserve (APA Caminhos Ecológicos da Boa Esperança), in which mining activities are allowed if authorized by the local environmental agency. The tenements are secure and in good standing with no known impediments to obtaining a licence to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	On the BRE Property, no previous exploration programs conducted by other parties for REEs. Between 2007 and 2011 other parties conducted exploration that is detailed in the company's prospectus and included exploratory drilling amounting to 56,919 m in 4,257 drill holes. On the Sulista Property, between 2013 and 2019 the project Vendors conducted exploration on the Licences that included drilling of approximately 5,000m of across 499 auger holes and approximately 1,000m of core holes. As of the effective date of this report, BRE is appraising the exploration data collected by other parties.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Company's tenements contain REE deposits interpreted as analogies to Ion Adsorption ionic Clay ("IAC") deposits, and regolith hosted deposits of monazite mineral grains, and primary in-situ REEE-Nb-Sc mineralisation.

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		The Project is hosted by the Jequié Complex, a terrain of the north-eastern São Francisco Craton, that includes the Volta do Rio Plutonic Suite of high-K ferroan ("A-type") granitoids, subordinate mafic to intermediate rocks; and thorium rich monazitic leucogranites with associated REE. The region is affected by intense NE-SW regional shearing which may be associated with a REE enriched hydrothermal system. Exploration completed by the Company has focused on the bedrock and regolith profile. Bedrock mineralisation is characterized by steeply dipping to sub vertical mega-enclaves of REE-Nb-Sc-U monazite cumulate mineralisation. Local bedrock controls to mineralisation, such as faults or dykes, are not well understood. The company has initiated mapping of the limited bedrock exposures at property and proposes to undertake deeper drilling to create a model of the local geological setting. The regolith mineralisation is characterised by a REE enriched lateritic zone at surface underlain by a depleted mottled zone grading into a zone of REE-accumulation in the saprolite part of the profile.

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 details related to all the diamond core drill holes presented in this Report are reported in BRE's ASX Announcements dated 1 February 2024, 6 June 2024 and 26 August 2024 (Original ASX Announcements). Other than the items noted below, BRE confirms that it is not aware of any new information or data that materially affects the information included in the Original ASX Announcements.

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 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.*	Downhole length weighted averaging is used to aggregate assay data from multiple samples within the significant intercepts reported in Appendix D. True width weighted averaging is used to aggregate assay data from multiple samples within all reported intercepts to derive weighted average grades reported in Appendix A, whereby an estimated true with is derived from the angle of the drill holes and the modelled width of mineralization. No grade truncations or cut-off grades were applied. No metal equivalents values are used.
Relationship between mineralisation	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole*	In the weathered profile all intercepts reported are down hole lengths. The geometry of mineralisation is interpreted to be flat. The drilling is vertical and perpendicular to mineralisation. In the weathered profile down hole lengths correspond to true widths.

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widths and intercept lengths	*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 (eg. 'down hole length, true width not known').*	Significant diamond drill hole intercepts in the fresh rock are reported in down hole lengths and true thickness. The distribution of mineralisation in fresh rock at Monte Alto is controlled by moderate to steeply dipping and sub vertical mega-enclaves of REE-Nb-Sc-Ta-U cumulate that strikes northwest. The angled drill holes have inclinations ranging from -55 to -75 degrees and will tend to intersect mineralisation at moderate angle. For these holes true thickness will typically be 50%-90% of down hole thickness. Vertical SSD series holes in the northern portion of Monte Alto tend to intersect mineralisation at a highly oblique angle. For these holes true thickness will typically be 30-50% of down hole thickness. Significant results in Appendix E are reported using both down hole and true thickness values.
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.*	Diagrams, tables, and any graphic visualization are presented in the body of the report.
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 avoiding misleading reporting of Exploration Results.*	The report presents all drilling results that are material to the project and are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.
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.*	Detailed walking radiometer surveys have been completed on the target areas using a RS-230 Portable Gamma Spectrometer. In survey mode, the total Count of gamma particles Per Second ("CPS") is recorded in real time. In survey mode, the total count of radioactive elements is recorded in real time. Readings are taken at waist height (approximately 1 m from the surface), the sensor can capture values in a radius of up to 1 m². High CPS occur in the presence of gamma releasing minerals. Throughout the Rocha da Rocha Critical Mineral Province, BRE has observed a positive correlation between CPS and thorium and REE bearing monazite. BRE has determined that gamma spectrometry is an effective method for determining the presence of REE mineralisation that is material to this report
Further work	• *The nature and scale of planned further work (eg. 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.*	To further develop the Monte Alto target and develop a hard-rock REE-Nb-Sc-U Mineral Resource, the Company will complete additional step-out and infill diamond core drilling to establish geological and grade continuity aiming for a drill spacing of 40 m x 40 m at the Monte Alto deposit. Elsewhere on the project BRE intends to test the Regolith Exploration Target (effective date of July 1, 2023) which is based on the results of BRE's previous drill programs and will be tested by ongoing infill and step out auger drilling in high priority areas. Upcoming works aim to validate the historic drilling and assess whether or not the project may become economically feasible including metallurgical recovery, process flowsheet and

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		optimisation. Further resource definition through additional drilling and sampling, geological mapping, and regional exploration through additional land acquisition are also planned. No forecast is made of such matters.