Brazilian Rare Earths Limited: December 2024 Quarterly Report

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Sydney, Australia - Brazilian Rare Earths Ltd. (ASX:BRE) (OTCMKTS:BRELY) (OTCMKTS:BRETF) is pleased to provide its quarterly report for the period ended 31 December 2024. Key highlights during and subsequent to the end of the quarter included:

Record Exploration Success Continues at Monte Alto

- Ultra-high-grade rare earth intercepts up to 45.7% TREO, with standout grades of NdPr (69,558 ppm) and DyTb (11,696 ppm)

- New record assays for niobium (1.7% Nb2O5) and tantalum (962 ppm Ta2O5) with very-high grades of scandium (382 ppm Sc2O3) and uranium (5,781 ppm U3O8)

- Exploration increased the continuity, depth and scale of the ultra-high-grade REE-Nb-Sc-Ta-U mineralised envelope, that remains open along strike and at depth

- Drilling extended the large horizons of high-grade, shallow monazite-sand mineralisation, including intercepts of 18m at 6.8% TREO from surface

District-Scale Growth Potential at Monte Alto

- Airborne magnetics revealed the potential for a larger, interconnected high-grade mineralised system extending over 4 km beyond the maiden Monte Alto deposit

- Multiple new regional discoveries, including high-grade rare earth outcrops of up to 14.6% TREO, rich in heavy rare earth elements dysprosium (5,691 ppm), terbium (737 ppm) and yttrium (74,543 ppm)

Outstanding Mineralogy and Metallurgy Results

- Chevkinite confirmed as the dominant mineral in the REE-Nb-Sc-Ta-U mineralisation, hosting exceptional grades of rare earths, niobium, tantalum, scandium and uranium

- Metallurgical test work on non-beneficiated 'run-of-mine' chevkinite achieved up to 94% TREO 'extraction' under mild acid and atmospheric leach conditions

Strategic Critical Minerals Portfolio

- High-grade tantalum (up to 880 ppm) added to rare earths, niobium, scandium, and uranium endowment

- Monte Alto has 18 of the 50 U.S. designated 'critical minerals' at high grades

Permitting Milestone

- Permitting progressed with approval of the Final Exploration Report for Monte Alto

- Final Exploration Reports for 20 additional licences (324 km2) across the Rocha da Rocha Province, for a combined total of 348 km2

Record Exploration Success Continues at Monte Alto

Successful exploration drilling results expanded the known strike, continuity, and depth of ultra-high-grade rare earth mineralisation at Monte Alto.

Exceptional rare earths grades of up to 45.7% TREO were returned, which is now the highest-grade rare earth assay at Monte Alto so far. Ultra-high grades of neodymium and praseodymium of up to 69,558 ppm NdPr and exceptional heavy rare earths grades of dysprosium and terbium of up to 11,696 ppm DyTb were also intersected in the drill results.

The latest drilling sets new exploration assay records for niobium at 1.7% Nb_2O_5 and for tantalum at 962 ppm Ta_2O_5. Very high grades of up to 382 ppm Sc_2O_3 and 5,781 ppm U_3O_8 were returned.

The new drilling also delineated a series of stacked, continuous horizons of REE-Nb-Sc-Ta-U mineralisation across a geological fold connecting the southern and northern domains of the Monte Alto deposit.

The best exploration result was diamond drill hole MADD0101, a continuous 28.8 metres (true-width) ultrahigh-grade 18.5% TREO intercept starting from just 10 metres of depth. This wide drill intercept returned:

- 37m at 16.1% TREO from 10m: 23,476 ppm NdPr, 1,157 ppm DyTb, 4,637 ppm Nb_2O_5, 108 ppm Sc_2O_3, 316 ppm Ta_2O_5, and 1,965 ppm U_3O_8 (MADD0101), including:

- 29m at 18.5% TREO from 10m: 27,071 ppm NdPr, 1,293 ppm DyTb, 5,127 ppm Nb_2O_5, 122 ppm Sc_2O_3, 350 ppm Ta_2O_5, and 2,205 ppm U_3O_8 (MADD0101), including:

- 7.1m at 35% TREO from 21.9m: 56,681 ppm NdPr, 2,522 ppm DyTb, 8,628 ppm Nb_2O_5, 237 ppm Sc_2O_3, 582 ppm Ta_2O_5, and 4,063 ppm U_3O_8 (MADD0101)

Exceptional Mineralogy Confirmed at Monte Alto

Metallurgical and mineralogy studies on Monte Alto's ultra-high grade REE-Nb-Sc-Ta-U mineralisation delivered highly successful results.

Monte Alto's REE-Nb-Sc-Ta-U mineralisation reported weighted average rare earth grades of 16.4% TREO, including rare earth grades of 27,063 ppm NdPr and heavy rare earths average grades of 1,327 ppm DyTb.

Mineralogical studies by SGS Laboratories and ANSTO Minerals provided important new insights into this ultrahigh grade mineralisation.

*To view the full Quarterly Report, please visit:
https://abnnewswire.net/lnk/UIKUZN31

About Brazilian Rare Earths Limited:

Brazilian Rare Earths Limited (ASX:BRE) is an Australian company, rapidly advancing its Tier 1 rare earth project in Northeast Brazil.

Company exploration to date has discovered and delineated a globally significant, district-scale mineral province containing large volumes of both heavy and light rare earths critical to advanced industries and applications that will deliver a green energy transition.

The Company is led by a team of experienced mining executives and geologists with hundreds of years of cumulative experience in finding, developing, and operating mineral assets to generate value across a wide variety of jurisdictions, and commodities throughout the globe.

Source:
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