Appia Rare Earths & Uranium – A Year in Review

written by Raj Shah | December 28, 2023
President's Letter to Stakeholders and Shareholders

December 28, 2023 (Source) – Appia Rare Earths & Uranium Corp. **(CSE: API) (OTCQX: APAAF) (FSE: A0I0) (MUN: A0I0) (BER: A0I0)** (the "**Company**" or "Appia") reviews successes and achievements over 2023.

This past year has been extraordinary for the Company. Not only have we continued to move forward with our Canadian assets – with our priority focus on our flagship Alces Lake project in Northern Saskatchewan – but we have also expanded well beyond our Canadian borders into South America with the signing of an Earn-In Agreement on the PCH Ionic Adsorption Clay project, in Goais State, Brazil.

Expanding Our Asset-Base to Brazil

On June 9th, Appia announced that it had entered into an earn-in agreement to acquire up to 70% interest in the PCH project, a high-grade Ionic Adsorption Clay (IAC) Rare Earth Elements (REE) project in Goiás State, Brazil.

The acquisition has proved to be a monumental win for the Company as an expedited exploration program resulted in more than 300 reverse circulation (RC) and auger drill holes delineating our first core zone, Target IV, continuously returning REE assay results that surpass most IAC industry benchmarks. Target IV covers an area of 198 hectares of a very large land package of over 17,000 hectares. This target area has proven to be 'best of class' and we are now working closely with

SGS Geological Services (SGS) to prepare our mineral resource estimate (MRE) on this exciting high-grade target zone with an average thickness of over 11 meters with certain sub-zones exceeding an average of over 19 meters thickness.

On October 31, the Company announced a monumental development in our story at PCH – PCH-RC-063 is a drill hole that reported 24 metres of mineralization from surface, **with a total weighted average of 27,188 ppm or 2.72% of Total Rare Earth Oxides (TREO)** and remains open at depth. Even more intriguing is the fact that several elements have surpassed the upper detection limit of the assay method being used…which means that the Company anticipates higher results to be received in the future once re-assaying is complete.

The PCH project is situated in a jurisdiction supportive of mining activities with many large-scale, major mining corporations actively exploring and mining located just +/- 30 km of the city of Iporá We are extremely fortunate to have the support of both local and state government, and the presence of optimal infrastructure. The PCH project is located in a mining friendly region known for cattle raising and farming and is well distanced from the Amazon rain forest region. Appia couldn't be more pleased as our PCH project represents exceptional exploration opportunity based on initial assay results, where all drill holes have consistently yielded mineralization and surpassed all our initial expectations, affirming the project's substantial potential.

A Collaborative Approach

SGS Geological Services:

Appia recently engaged SGS Geological Services led by Mr. Marc-Antoine Leporte to prepare a Mineral Resource Estimate (MRE) on its high-grade Ionic Adsorption Clay REE Target IV project, and

to prepare a companion NI 43-101 technical report on its +17,000-hectare PCH Project, first announced HERE in a press release dated November 7th.

SGS, with vast experience in precious metals, base metals, and critical minerals, including rare earths, was selected for their unparalleled expertise in metallurgy and process development. This marked a significant advancement in the exploration and potential development of the PCH Project, located approximately 30 km from the city of Iporá, Goiás State, Brazil.

Appia's extensive exploration program has been led by Carlos Bastos, our Brazilian Qualified Person (QP) and lead geologist along with our Canadian consulting geologist Mr. Don Hains, who is an industrial minerals expert and international thought-leader on the identification and development of Ionic Adsorption Clay REE projects worldwide. Also supporting this initiative is Senior Geologist, Leo Fraga, who has been Appia's lead onsite managing drilling, and Fabricio Santos, Appia's Brazilian geophysics and processes Manager. Together, our Brazilian team has performed extremely well in moving this program forward quickly and efficiently.

With 300 auger, reverse circulation (RC), and diamond drill (DD) holes across the PCH property, as well as a recently flown LiDAR survey over the main zones, including the Target IV zone, Appia has accomplished an extraordinary amount of work in a very short window of time…and we believe, our results will position the Company among the top REE companies in the world.

SRC REE Processing Facility in Saskatoon, Saskatchewan, Canada:

Appia and The Saskatchewan Research Council (SRC) have enjoyed a long-term working relationship when it comes to hard rock monazite, and Appia's Alces Lake project in Saskatchewan. We have used their team and facilities for many years to assay our

drill core from our flagship Alces Lake project, and more recently, engaged them in a characterization initiative that will significantly assist Appia in our further delineation of core targets and planning for the 2024 work season.

It is noteworthy to mention that the SRC has designed and recently commissioned Canada's inaugural proprietary solvent extraction cell technology for REE, as announced HERE. This ground-breaking technology marks a crucial advancement in the field, particularly in the efficient separation processes of hard rock monazite hosted rare earth elements.

The recently established solvent extraction cell technology by the SRC represents a milestone in pioneering innovative solutions for the rare earths industry at home and abroad. SRC's commitment to technological advancement solidifies its prominent role as a key player, contributing significantly to progress and innovation in the Canadian rare earths sector. Solvent extraction is a necessary step that makes REEs more valuable. Once this stage is complete, the separated rare earths can be converted into metal in a metal smelting unit. As Appia's ongoing exploration programs bring us closer towards the establishment of a MRE at Alces Lake, having this technology, and potential partner in-province, provides for additional leverage to continue to build our understanding of this flagship project.

Project Development

PCH Ionic Adsorption Clay REE Project, Goiás State, Brazil:

The PCH project comprises 10 claims in this extremely mining-friendly region of Brazil. Far removed from rainforests, the PCH property is found within a highly prospective region with multiple active mining operations and significant exploration activities currently underway and easily accessible by roads

with the necessary infrastructure in place to move this project forward when needed. Additionally, the area offers easy access to a skilled labour pool and has water and power in-situ.

Our results to date have shown the presence of high concentrations of REE within soft clay and saprolite zones which has facilitated efficient exploration and drilling campaigns and has allowed for rapid completion of a significant amount of work over a brief period by our dedicated Brazilian team of geologists and support team.

This region’s climate and the geological setting has produced the ‘perfect storm’ for the development of a weathered profile that produces the ionic clay zones. A warmer climate allows for year-round exploration, presenting more opportunities to maximize data acquisition and enhance overall project efficiency.

At the South-West Extension Zone of Target IV, RC drilling successfully expanded the overall total depth of this high-grade mineralization to an average of approximately 19 metres across the zone, and we have observed mineralization throughout the length of all RC and auger holes. For instance, holes PCH-RC-063 with a total depth of 24 m and PCH-RC-067 with a total depth of 11 m, each yielded grades exceeding 24,000 ppm or 2.4% TREO and over 5,000 ppm or 0.5% MREO at the bottom of each drill hole.

Ionic clay rare earth deposits are usually found within the top 10-20 m from surface; they are easier to mine; they tend to be more environmentally friendly because they contain low or no radioactivity; they exhibit simpler metallurgy and are therefore easier and cheaper to process; and they contain good amounts of both the very valuable heavy and light magnet rare earths that are in high demand for cleaner electrification and use in a large number of high tech applications.

Most recently, we announced impressive results at the new Scandium, Cobalt and REE Buriti Target south of the nearby Target IV zone. This discovery opens the potential of a promising new target zone for exploration and development and represents the first time that we have intersected significant continuous levels of Scandium Oxide (Sc2O3), Cobalt Oxide (CoO), and Rare Earth Oxides (REO) mineralization in the same RC drill hole. The Buriti Target is hosted within mafic and ultramafic rock formations associated with the Tertiary-age regional alkaline complex which is quite different from the underlying lithology at Target IV which consists of granites and alkali breccias.

Alces Lake REE Project, Athabasca Basin, Saskatchewan, Canada:

A comprehensive 4,000-metre drill campaign was undertaken this year at the Company's 100% owned flagship Alces Lake Project to drill-test a series of high-potential priority targets across the entire property, covering an area extending approximately 20 kilometres in length and 5 to 7 km in width. Earlier this year the Company announced the completion of an NI 43-101 technical report on Alces Lake based on previous exploration drill data. Please click here for a full copy of the NI 43-101 technical report.

The Company has received all its 2023 summer geochemical assay results, and we are currently compiling, reviewing, and interpreting these results for all the investigated areas and as results and as interpretations become available, a series of news releases will be published.

The technical content in this news release was reviewed and approved by Mr. Don Hains, P.Geo, Consulting Geologist, and a Qualified Person as defined by National Instrument 43-101.

Market Review

Global REE Markets:

Over the course of this year, China instituted multiple bans on the export of various critical minerals, equipment and technology essential for constructing rare earth magnets, as well as technology for extracting and separating critical materials. Contrary to potential concerns, this development is not expected to significantly impact Appia; rather, it is poised to exert a positive influence on the growing demand for critical Rare Earth Elements (REE) worldwide. This scenario has the potential to act as a catalyst in positioning Appia favourably amidst the evolving dynamics of the shifting global critical rare earths market and to promote the future development of the PCH and Alces Lake projects.

Global Uranium Market:

The linked article from The Wall Street Journal discusses the surge in demand for uranium, resulting in a shortage as miners struggle to keep pace. The uptick in uranium prices, driven by increased interest in nuclear power and the push for clean energy sources, has led to challenges in meeting the growing demand. The article highlights the potential for significant changes in the uranium market and the need for increased production to address the supply gap.

In closing, this being my first year with the Company, it has been an extraordinary process of learning and developing a vision for a future which is bright. The culmination of our recent achievements, including the near completion of the maiden Mineral Resource Estimate (MRE) on Target IV of our PCH project and companion NI 43-101 technical report on PCH, signifies a pivotal juncture for Appia.

Our dedicated drilling programs have yielded promising results, further solidifying our position in the dynamic rare earth

elements sector. We look forward to continued success on future drilling campaigns and the resulting data obtained from those exploration activities.

As we navigate through these exciting developments in Brazil, Appia remains steadfast in its commitment to further develop our projects in Canada. We appreciate the support from our shareholders and communities of influence, and we anticipate a future marked by continued success and impactful milestones.

We invite you to visit our newly designed website, corporate presentation, and fact sheet, to learn more about Appia Rare Earths & Uranium.

Best Regards,

Stephen Burega

President, Appia Rare Earths & Uranium Corp.

About Appia Rare Earths & Uranium Corp. (Appia)

Appia is a publicly traded Canadian company in the rare earth element and uranium sectors. The Company is currently focusing on delineating high-grade critical rare earth elements and gallium on the Alces Lake property, as well as exploring for high-grade uranium in the prolific Athabasca Basin on its Otherside, Loranger, North Wollaston, and Eastside properties. The Company holds the surface rights to exploration for 113,837.15 hectares (281,297.72 acres) in Saskatchewan. The Company also has a 100% interest in 13,008 hectares (32,143acres), with rare earth elements and uranium deposits over five mineralized zones in the Elliot Lake Camp, Ontario. Lastly, the Company holds the right to acquire up to a 70% interest in the PCH Project which is 17,551.07 ha. in size and located within the Goiás State of Brazil. (See June 9th, 2023,

Press Release – Click HERE)

Appia has 136.3 million common shares outstanding, 144.2 million shares fully diluted.

Cautionary *Note Regarding Forward-Looking Statements:* *This News Release contains forward-looking statements which are typically preceded by, followed by or including the words "believes", "expects", "anticipates", "estimates", "intends", "plans" or similar expressions. Forward-looking statements are not a guarantee of future performance as they involve risks, uncertainties and assumptions. We do not intend and do not assume any obligation to update these forward-looking statements and shareholders are cautioned not to put undue reliance on such statements.*

Neither the Canadian Securities Exchange nor its Market Regulator (as that term is defined in the policies of the CSE) accepts responsibility for the adequacy or accuracy of this release.

For more information, visit www.appiareu.com.

As part of our ongoing effort to keep investors, interested parties and stakeholders updated, we have several communication portals. If you have any questions online (Twitter, Facebook, LinkedIn) please feel free to send direct messages.

To book a one-on-one 30-minute Zoom video call, please click here.

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