

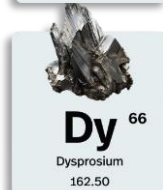
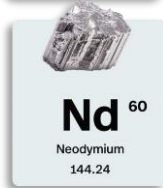
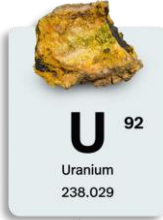


CSE: API | OTCQX: APAAF | FWB: A010 | MUN: A010 | BER: A010

***CRITICAL RARE EARTHS & URANIUM
EXPLORATION IN THE AMERICAS***

PDAC March 2024

Forward Looking Statement



This presentation contains forward-looking statements which may include but are not limited to statements with respect to the future financial or operating performance of Appia and its projects, the future price of uranium, capital operating and exploration expenditures, success of exploration activities, permitting timelines, government regulation and environmental risks and costs. Appia has tried to identify these statements by using words such as "plans", "proposes", "expects" or "does not expect", "is expected", "estimates", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

Forward-looking statements are not based on historical facts and involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or events, to be materially different from any future results, performance, achievements or events express or implied by the forward-looking statements. These forward-looking statements reflect current expectations of management regarding future events and performance. Such forward-looking statements are based on a number of assumptions which management believes to be reasonable but may prove to be incorrect and involve significant risks, including but not limited to: the general risks associated with the mining industry, lack of operating history, dependence on key personnel, conflicts of interest, the need to raise additional capital, title to properties, competition, speculative nature of the business, acquiring additional properties, uninsured risks, external market factors, government regulation, environmental regulations, exploration risk, calculation of resources, insufficient resources, barriers to commercial production, maintaining property interests, commodity prices, exchange rates, lack of dividends, lack of public trading market, currency risk and controlling shareholder.

Although Appia has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Anyone reviewing this Site should not place undue reliance on forward-looking statements. While the Company anticipates that subsequent events and developments may cause its views to change, Appia specifically disclaims any obligation to update these forward-looking statements, except as required by law. The factors identified above are not intended to represent a complete list of the factors that could affect the Company.

The technical information in this Presentation has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101"). The information was reviewed and approved by Dr. Irvine R. Annesley, P.Geo, Vice President Exploration and a Qualified Person as defined by National Instrument 43-101.

Why Appia?

Appia offers a unique opportunity to tap into **the growing demand for rare earth elements and uranium**, which are pivotal in powering various industries. As the world transitions to cleaner energy sources and advanced technologies, the demand for rare earth elements and uranium is on the rise. Appia's strategic positioning in these markets, coupled with its commitment to environmentally conscious exploration practices, makes it a compelling choice for investors looking to align their portfolios with the future of clean energy, high-tech innovation, and responsible resource development.

Strategic Outlook

The Company will finalize its NI 43-101 Technical Report on PCH in support of its maiden Mineral Resource Estimate on Target IV and Buriti Zones announced on March 1st, 2024 in collaboration with SGS Geological Services.

Appia Rare Earths & Uranium Corp. will continue to provide timely updates to investors as assay results are received from both PCH (Brazil) & Alces Lake (Canada) from completed 2023 drill programs.

Exploration campaigns continue on PCH, Alces Lake, and Loranger projects.

Uranium Market Discussion

"I would say that even though the price has broken out to \$100, we still think that there's a lot of opportunity here because we look at the supply deficit that the industry needs to solve. Whether you take the base case or the more aggressive scenario, it's somewhere in the neighborhood of 1.5 billion to 2.3 billion pounds of uncovered requirements that utilities have between now and 2040. The only way you solve, that is you need to basically double production globally between now and 2040..." ~ John Ciampaglia, CEO of Sprott Asset Management
Full article [HERE](#).

Capital Structure

(at February 16th, 2024)

Issued:

136.4M shares
(Insiders approx. 27 %)

Fully Diluted:

144.5M shares

Cash on Hand: Approx.
CAD \$2.5M

Debt: None

Executive Leadership & Advisors

Appia's Management and Board has over 250 years combined industry experience



Anastasios (Tom) Drivas
CEO & DIRECTOR

Business entrepreneur with over 30 years of experience in various industries, including over 20 years in the mineral resource industry.



Stephen Burega
PRESIDENT

Brings 16 years of management and operations experience in the international mining and natural resources sectors, plus 15 years of experience in finance & communications.



Frank van de Water,
B.Com, CPA, CA
**CFO, SECRETARY,
DIRECTOR**

Involved in international mining, metals and resource companies in North and Latin America, Europe and Africa for over 40 years.



Constantine
Karayannopoulos
**SR. TECHNICAL
ADVISOR**

30 years of expertise and leadership at NEO Performance Materials as COO, CEO, Chairman of the Board and CEO again from 2020-2023.



Don Hains, P. Geo
**SR. TECHNICAL
ADVISOR**

40+ years' experience as a consulting geologist and QP, with highly advanced Industrial Minerals and Ionic Adsorption Clay expertise.



Jack Lifton
**SR. TECHNICAL
ADVISOR**

Consultant, author, and lecturer on the market fundamentals of technology metals.

Company Overview

Appia is a publicly traded mineral exploration company that aims to strategically position and capitalize on the increasing demand for critical minerals, such as rare earth elements (REE) and uranium. These resources are essential for meeting the high demand for electric vehicles, wind turbines, advanced renewable electronics, and driving the transition towards a greener environment. Appia is committed to advancing multiple rare earths and uranium projects in mining-friendly regions, including Goiás State, Brazil, the Athabasca Basin area in Saskatchewan, Canada and Elliot Lake, Ontario, Canada.

Ionic Clay Rare Earths

PCH, GOIAS, BRAZIL

- High-grade critical REE (containing MREE & HREE) hosted in ionic clays
- Rare Earths in ionic clays are generally more easily extractable with lower Opex & Capex costs
- **MRE & NI 43-101 Technical Report Underway with SGS**
- *Ongoing exploration & well-developed infrastructure*

Monazite Rare Earths

ALCES LAKE, SASK, CANADA

- *High-grade monazite prospect on surface and near-surface of up to 80% coarse-grained monazite*
- *World-class critical REE with grades up to 50% TREO plus gallium*
- Most Attractive Mining Jurisdiction in Canada with access to SRC monazite processing facility

Uranium, Saskatchewan

LORANGER, SASK, CANADA

- *Forthcoming drilling campaign to cover 1,000 - 1,200 metres across 8 to 10 drill holes*
- *Previous drill campaigns covered 4,630.8 metres drilled across 34 holes to date*
- *Spanning 26,408.8 hectares, measuring 57 kilometres by 9 kilometres*

Uranium, Ontario

ELLIOT LAKE, ON, CANADA

- *Holds an extensive Indicated & Inferred Maiden Mineral Resource Estimate (MRE)*
- *Large Historical Resource (non-compliant)*
- *Well-developed infrastructure & 58 Km from Cameco's uranium refining facility near Blind River, ON*
- *Spanning 13,008 hectares (32,143 acres)*

Our Projects

Appia is strategically positioned with mining projects in two of the world's most mining-friendly jurisdictions, Canada and Brazil.

Canada

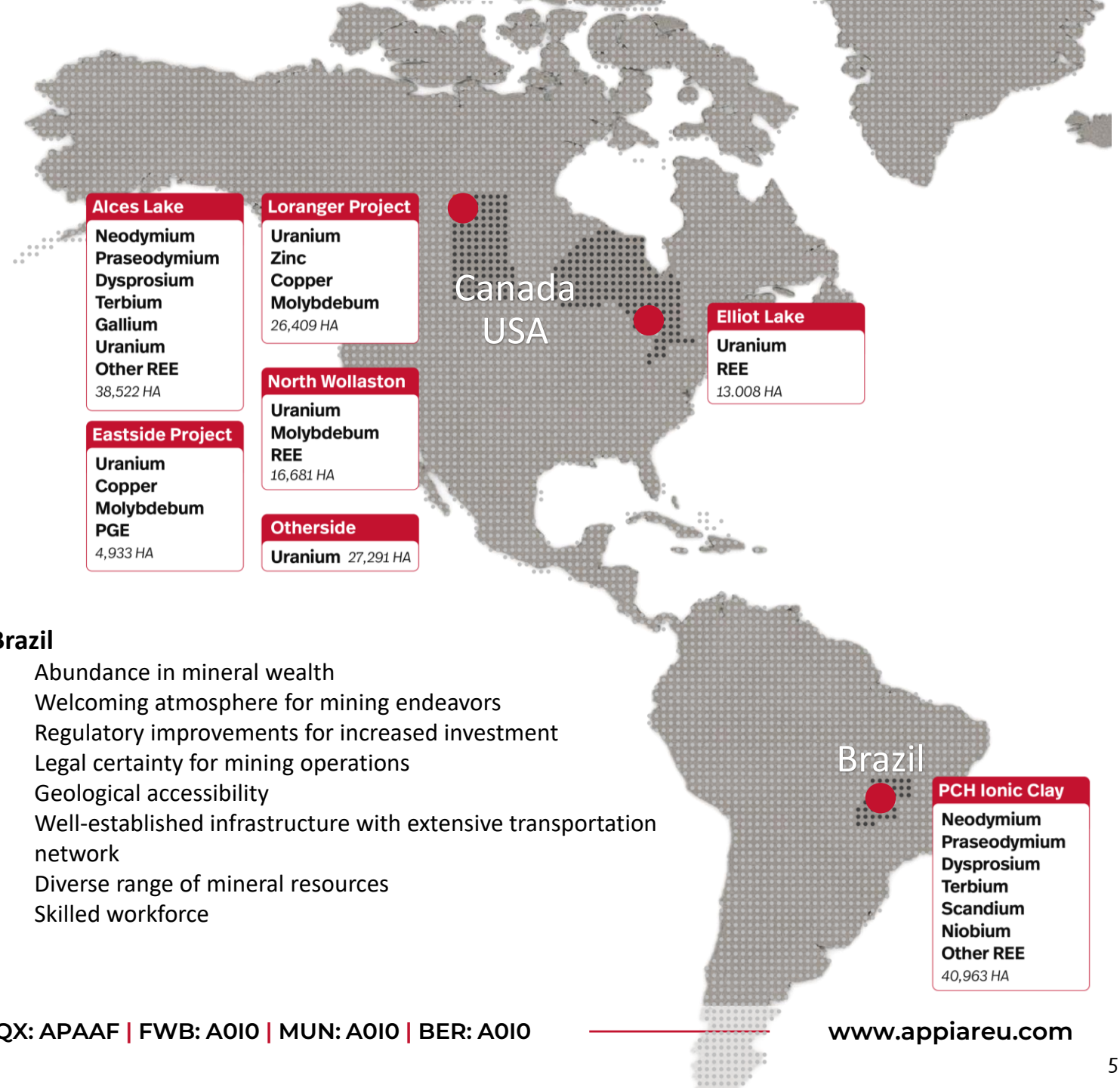
- Renowned for political stability and robust legal framework
- Beacon of security for mining investments
- Rich endowment of mineral resources
- Well-established mining industry
- Secure environment safeguarding investor interests
- Geological diversity for vast resource exploration
- Experienced mining workforce for efficient project execution
- Developed infrastructure supporting mining operations

Company's Projects in Canada

- Large uranium ground position in Elliot Lake
- Four highly prospective uranium exploration projects in Athabasca Basin area: Loranger, North Wollaston, Eastside, Otherside

Company's Project in Brazil

- Large REE Ionic Adsorption Clay project



Brazil

- Abundance in mineral wealth
- Welcoming atmosphere for mining endeavors
- Regulatory improvements for increased investment
- Legal certainty for mining operations
- Geological accessibility
- Well-established infrastructure with extensive transportation network
- Diverse range of mineral resources
- Skilled workforce

PCH Project, Goiás, Brazil

Highlights:

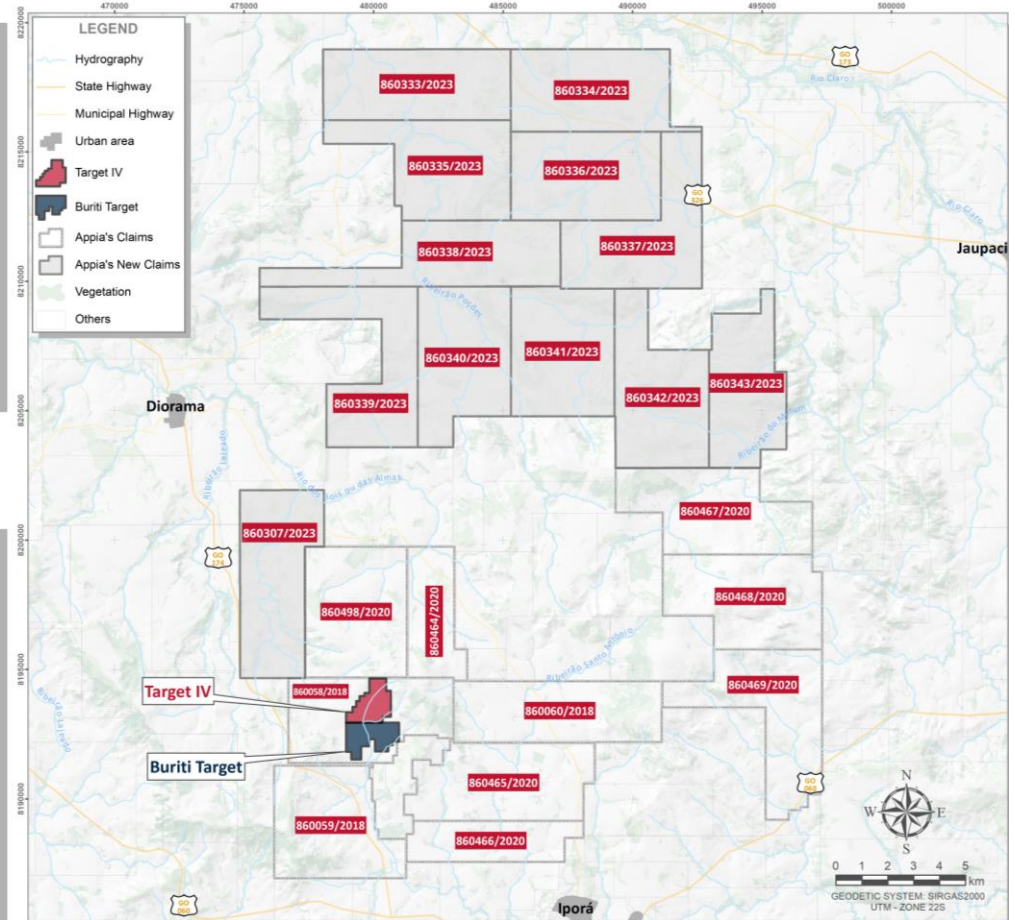
- 40,963 hectares in Tocantins Structural Province, Brasília Fold Belt, Goiás, Brazil.
- Characterized by high-grade REE mineralization from surface and open at depth.
- Soft clay formations facilitate easy access to discovering mineralization zones through RC, Auger, and Diamond drilling campaigns.
- Unprecedented TREO assay results returned within Target IV zone.
- Mining-friendly jurisdiction with well-developed infrastructure and substantial government support initiatives.
- Supported by surrounding landowners and community.



PCH REE Ionic Adsorption Clay (IAC) Project: Brazil

The PCH Ionic Clay Project

- Located in the Goiás state of Brazil in the Brasilia fold belt, 216 km from Goiânia & 410 km from Brasília.
 - 30 km from Iporá, ensuring access to skilled labour.
 - Infrastructure includes power and water, & is easily accessible via well-developed regional roads
 - The property hosts rare earths (heavy and light), scandium, cobalt, & niobium
 - Experienced Brazilian team including renowned QP Geologist, **Don Hains**.
 - South of Serra Verde project (with an expected 900 million tonnes reserves at 1200 ppm TREO).
 - 70% Earn in agreement to be completed by 2028
-
- ✓ 2024 Mineral Resource Estimate on Target IV & Buriti
 - ✓ 2024 NI 43-101 on PCH REE project.



The 22-claim PCH Project spans a total of 40,963 hectares

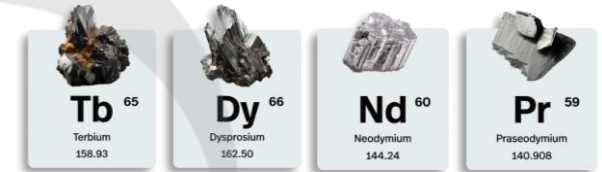
PCH Mineral Resource Estimate (MRE) Project:

Mineralized Zone	Classification	Volume	SG	Tonnes	TREO	MREO	HREO	Sm ₂ O ₃	Tb ₄ O ₇	Dy ₂ O ₃	Pr ₆ O ₁₁	Nd ₂ O ₃	Sc ₂ O ₃	Co
		Mm ³		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Target IV	Indicated	3.3	1.97	6.6	2513	562	186	58.3	5.8	31.1	109	358	15.9	22
	Inferred	6.9	1.96	13.5	7307	1391	331	114.4	9.6	49.4	311	907	24.6	74
Buriti	Inferred	16.7	1.96	32.7	1059	259	101	29.0	3.1	17.8	45	164	68.6	127
TOTAL	Indicated	3.3	1.97	6.6	2513	562	186	58.3	5.8	31.1	109	358	15.9	22
	Inferred	23.6	1.96	46.2	2888	591	168	54.0	5.0	27.0	123	381	55.7	111

- The MRE has an effective date of the 1st of February 2024.
- The Qualified Person for the MRE is Mr. Yann Camus, P.Eng., an employee of SGS.
- The MRE provided in this table were estimated using current Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Standards on Mineral Resources and Reserves, Definitions and Guidelines.
- Mineral Resources that are not Mineral Reserves have not demonstrated economic viability. Additional drilling will be required to convert Inferred and Indicated Mineral Resources to Measured Mineral Resources. There is no certainty that any part of a Mineral Resource will ever be converted into Reserves.
- All analyses used for the MRE were performed by SGS GEOSOL by ICM40B: Multi Acid Digestion / ICP OES – ICP MS and by IMS95R: Lithium Metaborate Fusion / ICP-MS.
- MRE are stated at a cut-off total NSR value of 10 US\$/t. The full price list and recovery used to estimate the NSR is in Table 2. The estimated basket price of TREO is US\$26.98.
- GEOVIA’s Whittle™ software was used to provide an optimized pit envelope to demonstrate reasonable prospecting for economic extraction. Preliminary pit optimization parameters included overall pit slope of 30 degrees, in-pit mining costs of \$2.10, processing and G/A costs of \$9/t, and overall mining loss and dilution of 5%. Full details of the preliminary pit-optimization parameters can be found in Table 2. The basket price and oxides price list in Table 2 are based on forward-looking pricing. These future prices are predicted based on market trends, economic forecasts, and other relevant factors. The actual prices may vary depending on changes in these factors.
- Figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.
- Resources are presented undiluted and in situ, constrained within a 3D model, and are considered to have reasonable prospects for eventual economic extraction.
- Bulk density values were determined based on physical test work and assumed porosities for each type of material.
- Total Rare Earth Oxides: TREO = Y₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₂O₃ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃ + La₂O₃ + Ce₂O₃ + Pr₂O₃ + Nd₂O₃ + Sm₂O₃
- Magnetic Rare Earth Oxides: MREO = Sm₂O₃ + Tb₄O₇ + Dy₂O₃ + Pr₆O₁₁ + Nd₂O₃
- Heavy Rare Earth Oxides: HREO = Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃
- The MRE may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

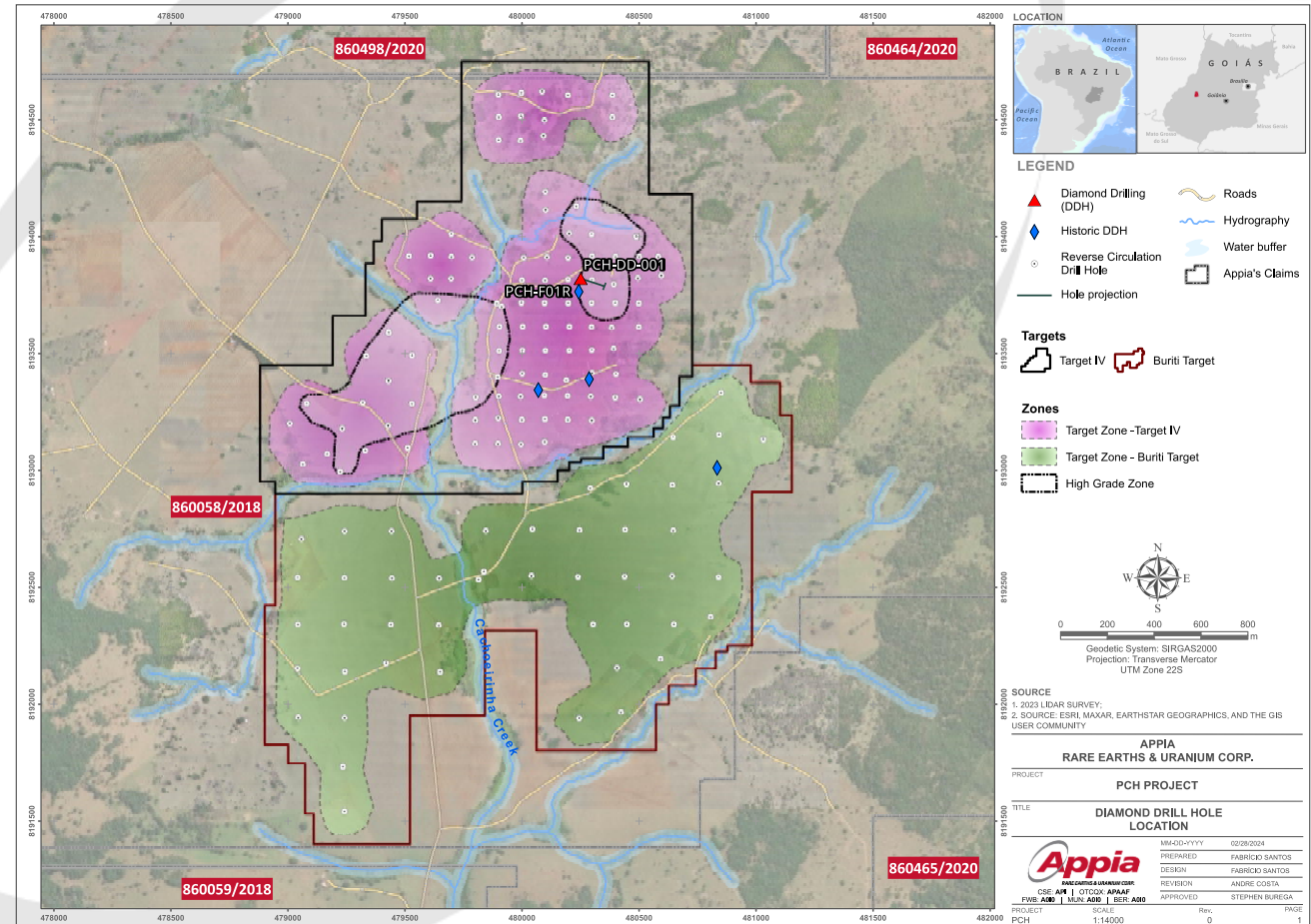
Target IV and Buriti Zone: MRE Highlights

Magnet Rare Earths (MRE)



Highlights:

- The maiden MRE for the PCH Project is estimated at 52.8 million tonnes (Mt) comprising:
 - 6.6 Mt Indicated resource with a grade of 2,513 parts per million (ppm) total rare earth oxide (TREO).
 - 46.2 Mt Inferred resource with a grade of 2,888 ppm TREO.
- The deposit contains significant concentrations of Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb) which are the rare earth elements used in the production of permanent magnets and currently under high demand.
- The Company is currently undertaking a significant evaluation of the potential desorbed rare earth oxide (DREO), and results are pending.
- Significant anomalies of Scandium and Cobalt have been identified in the Buriti Zone, adding additional potential resource value to the project.



Flagship Canadian Projects

Alces Lake: Rare Earth Elements in Monazite

- Alces Lake focuses on critical rare earth elements, particularly Neodymium (Nd) and Praseodymium (Pr), essential for permanent magnet production.
- The property also includes Uranium, Thorium, Phosphates, and Gallium, broadening the resource portfolio.
- Situated north of Lake Athabasca within the Athabasca Basin region, approximately 34 km east of Uranium City and 135 km west of Stony Rapids.
- Benefits from helicopter support for efficient operations and access to remote areas, with year-round accessibility via plane and ice road transportation.
- Features a state-of-the-art, all-season permanent camp capable of accommodating up to 35 team members, alongside two on-site drills for extensive exploration.
- Partnership initiatives with the Local First Nations Community of Fond-du-Lac promote access to resources and to skilled labour.
- Supported by a 43-101 technical report dated May 30, 2023.

Commodities:

REE
Uranium

Ownership:

100% Interest

Size:

38,522HA
(95,191 acres)

Elliot Lake: High-grade uranium

- Situated 58 Km from Blind River where Cameco operates world's largest commercial uranium refinery.
- Well-established local infrastructure.
- Increasing global demand for uranium, with Western utilities seeking low-risk jurisdictions like Canada and the USA.
- Significant rise in Spot Market price for uranium in 2023
- NI 43-101 Indicated Mineral Resource for Teasdale Lake Zone: 14,435,000 tons with a grade of 0.554 lbs U₃O₈/ton and 3.30 lbs TREE/ton, totaling 7,995,000 lbs U₃O₈ and 47,689,000 lbs TREE.
- Inferred Mineral Resource for Teasdale Lake Zone: 42,447,000 tons, grading 0.474 lbs U₃O₈/ton and 3.14 lbs TREE/ton, totaling 20,115,000 lbs U₃O₈ and 133,175,000 lbs TREE.
- Inferred Mineral Resource for Banana Lake Zone: 30,315,000 tons, with a grade of 0.912 lbs U₃O₈/ton, totaling 27,638,000 lbs U₃O₈.
- Historical resource (non-compliant) totals approximately 199 million lbs of uranium at a grade of 0.76 lbs U₃O₈/ton.

Commodities:

Uranium
REE

Ownership:

100% Interest

Size:

13,008 HA
(32,143 acres)



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