

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

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February 2025



## **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, Consulting Geologist, and Mr. Andre Costa, former VP of Exploration, Brazil and Qualified Persons as defined by National Instrument 43-101.



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## **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.

#### **Monazite Rare Earths Ionic Clay Rare Earths** Uranium, Ontario **Uranium**, Saskatchewan ALCES LAKE, SASK, CANADA ELLIOT LAKE, ON, CANADA PCH, GOIAS, BRAZIL Uranium Projects, SASK, CANADA Holds an extensive Indicated *4 exploration projects in the* Critical REE hosted in ionic High-grade *monazite* • & Inferred Mineral Resource Athabasca Basin prospect on surface and clays Estimate (MRE) of over 55 Loranger, Eastside, Otherside **High grade Carbonatitc** *near-surface of up to 80%* million pounds Uranium and North Wollaston breccia mineralization coarse-grained monazite Well-developed projects Rare Earths in ionic clays are World-class critical REE with infrastructure & 58 Km from Plans for exploration in generally easily extractable grades up to 50% TREO plus Cameco's uranium refining Summer of 2025 include with lower Opex & Capex gallium facility near Blind River, ON drilling at Alces Lakes and Most attractive mining costs Spanning 13,008 hectares further ground prospecting MRE & NI 43-101 Technical jurisdiction in Canada with (32,143 acres) and exploration on the other Report completed with SGS access to SRC monazite 3 projects **Proved IAC characteristics** processing facility



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## 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**

- 1. Working towards becoming a major supplier of a secure source of critical minerals, including Uranium and Magnet Rare Earths, to supply North American and European markets.
- 2. Increasing the NI 43-101 resource, and further exploration, at the PCH project. And will work towards identifying potential partners for off-take and/or strategic investment at the PCH project in Brazil. Moving towards the development of a Preliminary Economic Assessment (PEA).
- **3.** Monetizing our non-core assets to fund the PCH project.
  - Announced on May 15<sup>th</sup> 2024 a MoU for the sale of the Elliot Lake project for \$75 million and a 2% NSR.
- 4. Continue exploration at the Alces Lake project to identify further high-grade targets along the +20 KM structural corridor
- **5.** Drilling and ground exploration at Appia's 4 uranium projects in Saskatchewan.

### **Capital Structure**

(at February 4<sup>th</sup>, 2025)

Issued:

 153M shares (Insiders approx. 27 %)

**Fully Diluted:** 

• 177M shares

**Debt:** 

None



## **Executive Leadership & Advisors**

Appia's Management and Board has over 300 years combined industry experience





## **Our Projects**

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

#### Canada

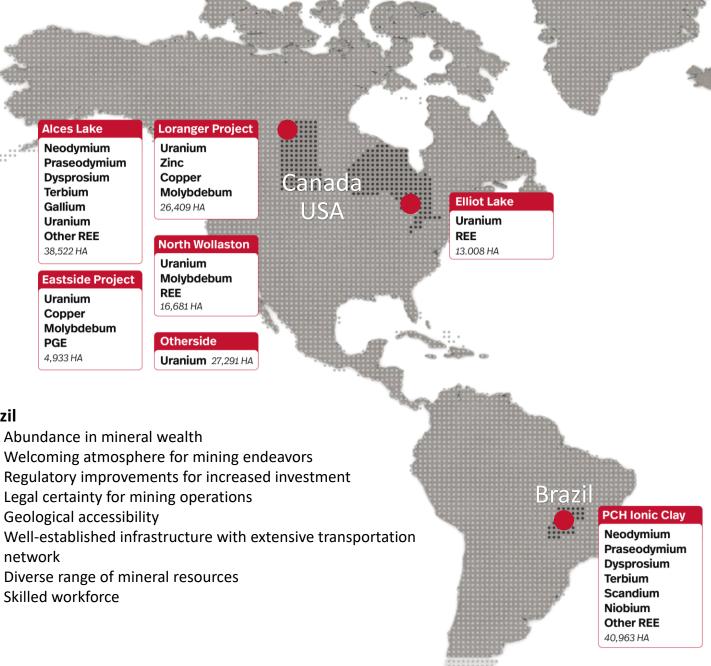
- Renowned for political stability and robust legal framework
- Beacon of security for mining investments
- Rich endowment of mineral resources
- Well-established mining industry
- Secure environment safeguarding investor interests
- Geological diversity for vast resource exploration
- Experienced mining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

#### **Company's Projects in Canada**

- Alces Lake REE project is a high-grade Monazite project
- 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**

PCH Project is a large REE Ionic Adsorption Clay project





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Geological accessibility

Skilled workforce

network

Alces Lake

Neodymium

Dysprosium

Terbium

Gallium

Uranium

38,522 HA

Uranium

Copper Molybdebum

4,933 HA

PGE

Brazil

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Other REE

**Eastside Project** 

Abundance in mineral wealth

Praseodymium

Uranium

Copper

26,409 HA

Uranium

16,681 HA

Otherside

REE

Zinc



## PCH Project, Goiás, Brazil **Highlights:**

- 42,932 hectares in Tocantins Structural Province, Brasília Fold Belt, Goiás, Brazil.
- Characterized by IAC REE mineralization associated with the weathered Iporá Granite.
- High-grade REE mineralization associated with Carbonatitic dykes with unprecedented TREO assay results.
- New IAC targets being drilled and assayed
- Mining-friendly jurisdiction with well-developed infrastructure and substantial government support and initiatives.
- Supported by surrounding landowners and community.

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## **The PCH Project Overview**

- The 23-claim PCH Project spans a total of 42,932.24 hectares.
- Located in Goias State of Brazil, 410 km from Brasillia and approx. 25 km from the town of Ipora.
- Flat, easy rolling topography, with access-roads and power in place.
- Local residents and communities are in favour of the project development.
- The maiden NI 43-101 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 ppm TREO and 46.2 Mt Inferred resource with a grade of 2,888 ppm TREO.
- MRE with significant concentrations of Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb).
- Desorbable values from RC holes show representative preliminary desorption results with Nd2O3 and Pr6O11 ranging from 39.7 ppm to 451.2 ppm, from 1.6% to 48.2% recovery, and Tb4O7 and Dy2O3 ranging from 5.7 ppm to 70.2 ppm, from 12.0 to 86.7% recovery.
- Quick desorption.



## **The PCH Project Overview**

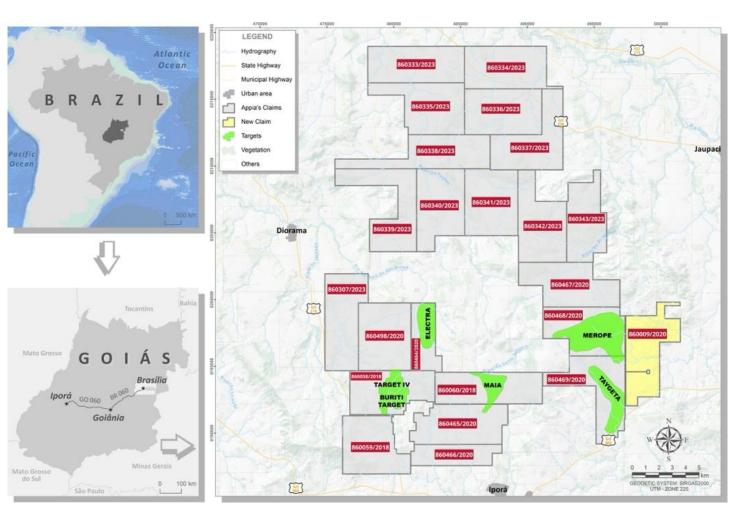
- The four new IAC zones identified (Merope, Taygeta, Maia and Electra) were 'auger drilled and assayed to test the grades and desorption result. There is potential for an additional 265 million tonnes of material.
- The new zones contain very good heavy rare earth grades.
- Identification of a highgrade zone, located in the southwest extension zone of Target IV, presenting extremely high TREO grades, with up to 92,000 ppm TREO and an average of 23,000 ppm TREO in its inner core.
- Only approx. 10% of the property has been explored today. Excellent potential to discover substantially more resources.
- Appia has an option to earn 70% interest on the property by incurring US \$10M by 2028 with the right of first refusal (RoFR) for the balance of interest
- Appia plans are to aggressively explore the property and complete a PEA and PFS to advance the PCH project into development.
- Appia is seeking interest from strategic partners and investors to fast track the development of its PCH project.



## PCH REE Project: Brazil

#### **The PCH Project**

- Two Mineralization Styles: IAC and Carbonatitic Breccia
- 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, and is easily accessible via well-developed regional roads
- The property hosts rare earths including Tb, Dy, Nd and Pr, also scandium, and cobalt
- Experienced Brazilian team.
- 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.
- Located south of the producing Serra Verde project (with an expected 900 million tonnes reserves at 1200 ppm TREO)



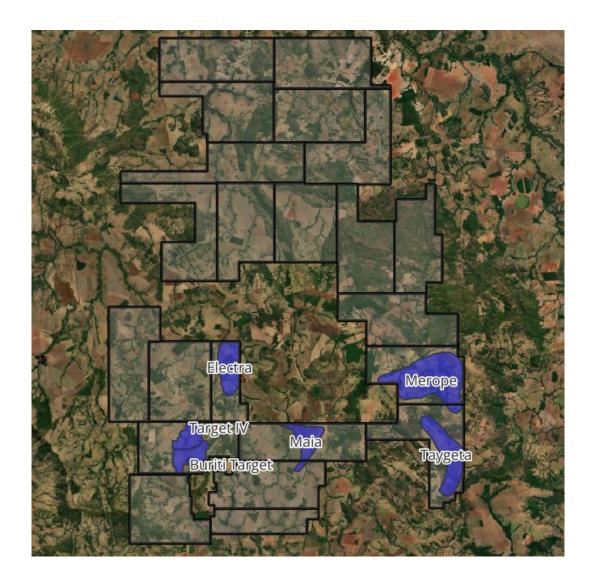
The 23-claim PCH Project spans a total of 42,932.24 hectares



## PCH REE Project: Brazil

### The PCH Project

- The 23-claim PCH Project spans a total of 42,932.24 hectares.
- Most of the area is comprised of pastures and seasonal crops.
- Only 10% of the Claim Area has been investigated to date.

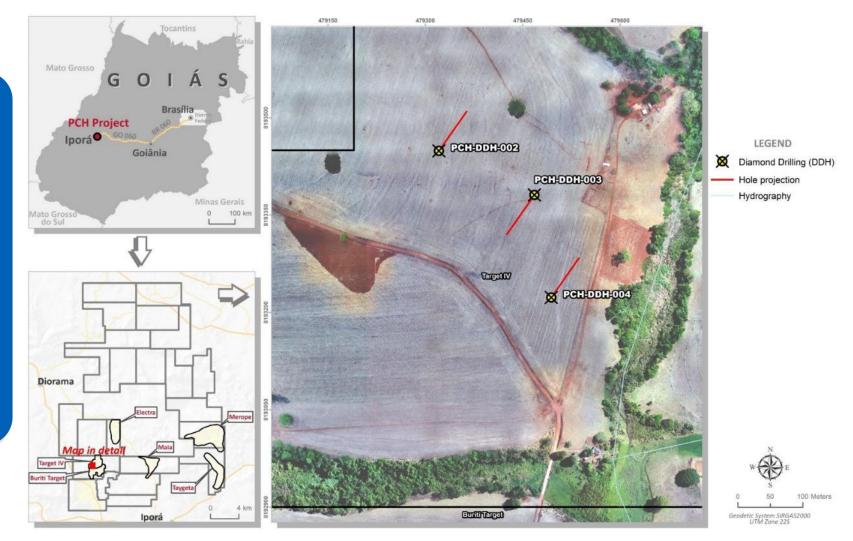




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## Highgrade Zone – Carbonititic Breccia

- All 3 drill holes are mineralized with high grade rare earths from top to bottom highlighting the enormous potential
- The 3 drillholes intercepted substantial Total Rare Earth Oxide (TREO), Niobium Oxide (Nb2O5) and Phosphate Oxide (P2O5) from the brecciated carbonatite intrusion identified in the Southwest Extension Zone of Target IV





## **Highgrade Zone Intercepts**

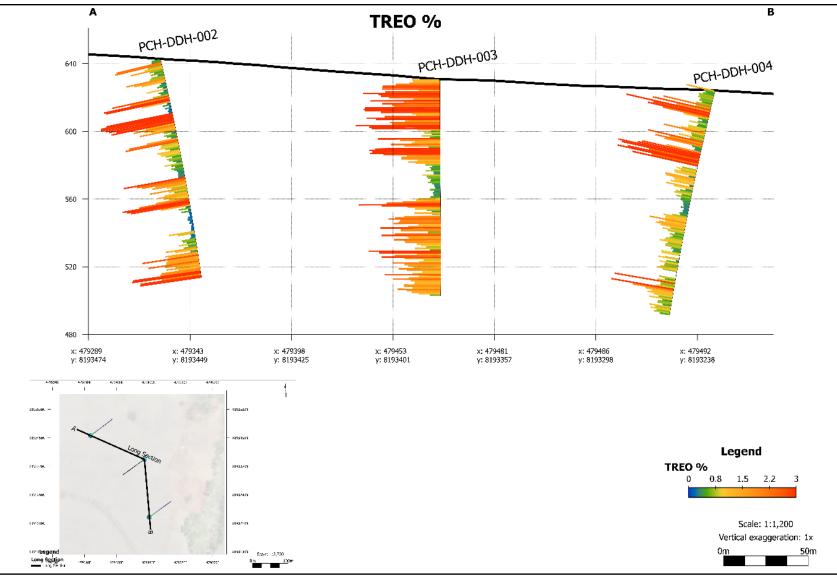
Drillhole	Thickness		TREO %	Nb2O5 %	P2O5 %	<b>TiO2</b> %	From
PCH-DDH-002	150 metres	@	1.14	0.12	2.76	2.31	Surface
including	12 metres	@	2.54	0.21	9.52	0.61	37 metres
including	20 metres	@	1.75	0.13	2.8	2.49	81 metres
including	18 metres	@	2.03	0.14	2.29	0.34	132 metres
PCH-DDH-003	147.7 metres	@	1.69	0.18	3.26	1.39	Surface
including	58 metres	@	2.19	0.26	5.18	1.89	Surface
including	17 metres	@	1.87	0.11	1.44	0.52	117 metres
PCN-DDH-004	153 metres	@	1.08	0.15	2.31	1.99	Surface
including	10 metres	@	2.16	0.24	3.22	5.12	10 metres
including	9 metres	@	3.08	0.24	7.37	0.96	42 metres
including	18 metres	@	1.01	0.26	3.15	0.32	135 metres

• All three drillholes ended in TREO mineralization indicating a potential to increase the mineralized zone at depth



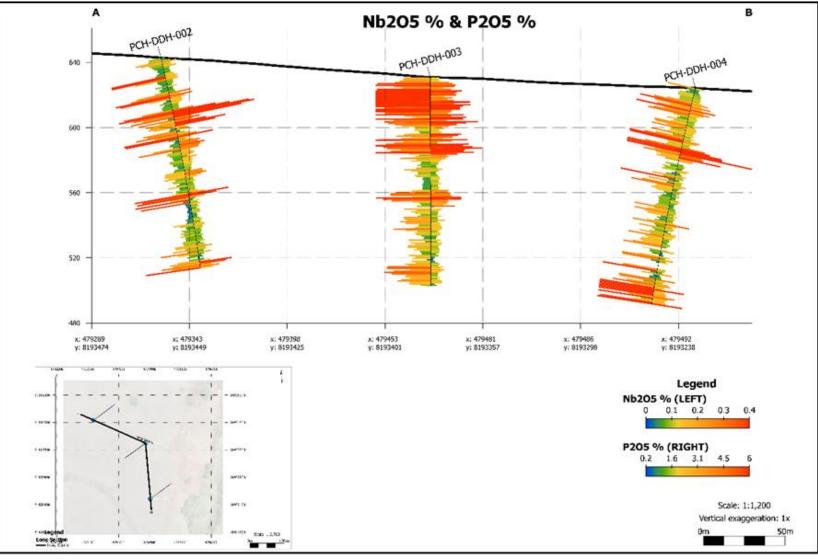
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## Highgrade Zone - TREO %



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## Highgrade Zone - Nb2O5 % and P2O5 %

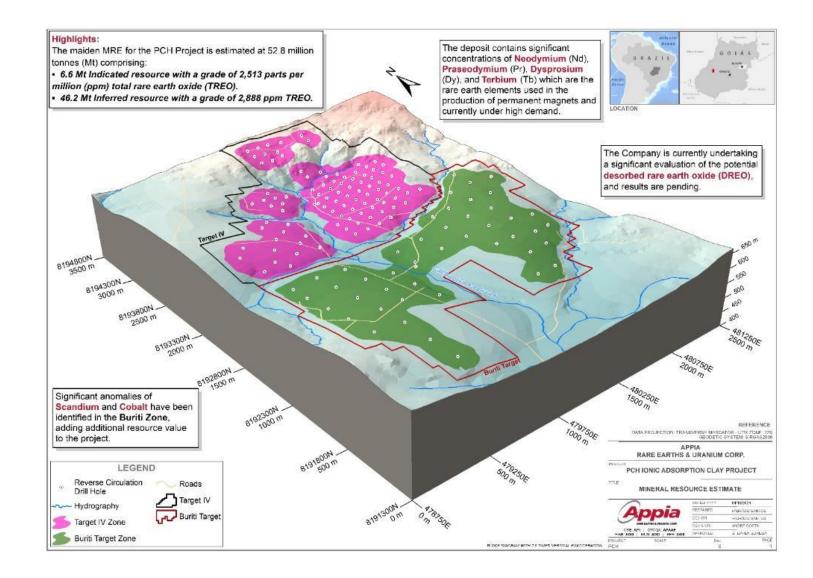




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## Target IV and Buriti Zone: MRE Highlights

- The maiden NI 43-101 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 ppm 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.





## PCH Maiden NI 43-101 Mineral Resource Estimate (MRE) Project:

Mineralized Zone	Classification	Volume	SG	Tonnes	TREO	MREO	HREO	Sm <sub>2</sub> O <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	Dy <sub>2</sub> O <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	$Nd_2O_3$	$Sc_2O_3$	Co
		Mm <sup>3</sup>		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
Target IV	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
τοτοι	Indicated	3.3	1.97	6.6	2513	562	186	58.3	5.8	31.1	109	358	15.9	22
TOTAL	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 WhittleTM software was used to provide an optimized pit envelope to demonstrate reasonable prospection 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 + Lu2O3 + 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.



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## Preliminary Desorption Results From Target IV PCH

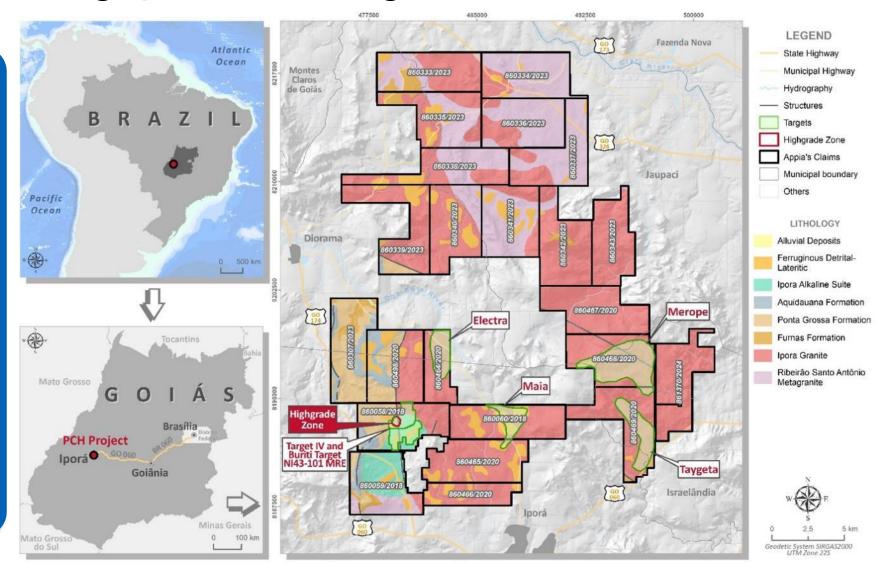
• Desorbable values from RC holes located in the weathered portion of the Ipora Granite show representative preliminary desorption results with Nd2O3 and Pr6O11 ranging from 39.7 ppm to 451.2 ppm, from 1.6% to 48.2% recovery, and Tb4O7 and Dy2O3 ranging from 5.7 ppm to 70.2 ppm, from 12.0 to 86.7% recovery.

Holeid	Inte	rval	TREO	TREO D	%TREO D	HREO	HREO D	%HREOD	NdPr	NdPr D	%NdPr D	DyTb	DyTb D	%DyTb D
	From	То		Desorbed	TREOD/TREO*100		Desorbed	HREOD/HREO*100		Desorbed	NdPrD/NdPr*100		Desorbed	DyTbD/DyTb*100
	m	m	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
PCH-RC-001	3.0	4.0	4505.8	495.1	11.0	724.6	147.4	20.3	889.4	120.4	13.5	124.9	20.3	16.3
PCH-RC-001	5.0	6.0	4215.9	760.9	18.0	806.6	266.9	33.1	822.9	169.7	20.6	141.6	37.9	26.8
PCH-RC-001	6.0	7.0	3404.6	488.5	14.3	815.9	193.4	23.7	574.3	99.6	17.3	121.6	26.1	21.5
PCH-RC-007	10.0	11.0	2214.6	338.9	15.3	362.8	136.0	37.5	471.0	74.1	15.7	46.1	15.8	34.3
PCH-RC-008	5.0	6.0	2545.4	858.1	33.7	453.0	241.8	53.4	508.0	245.0	48.2	71.3	35.2	49.4
PCH-RC-008	6.0	7.0	7940.4	1617.8	20.4	1523.5	471.8	31.0	1720.5	451.2	26.2	249.7	70.2	28.1
PCH-RC-008	7.0	8.0	5708.1	1184.3	20.7	1146.6	359.4	31.3	1180.0	318.2	27.0	181.6	51.3	28.3
PCH-RC-008	8.0	9.0	2645.2	648.7	24.5	483.6	206.3	42.7	535.4	168.5	31.5	72.4	29.2	40.4
PCH-RC-008	9.0	10.0	5741.7	514.3	9.0	990.8	171.1	17.3	908.1	122.2	13.5	153.9	24.1	15.6
PCH-RC-023	9.0	10.0	2163.1	215.2	9.9	236.7	80.1	33.8	416.3	39.7	9.5	37.9	7.8	
PCH-RC-029	3.0	4.0	1548.1	256.3	16.6	93.7	45.7	48.8	263.3	81.8	31.1	15.5	5.8	37.6
PCH-RC-034	9.0	10.0	5357.4	398.6	7.4	604.5	138.5	22.9	1089.0	108.8	10.0	80.6		
PCH-RC-037	4.0	5.0	3166.1	178.9	5.7	96.8	52.6	54.3	499.6	48.6	9.7	12.6	6.2	49.7
PCH-RC-043	3.0	4.0	2046.5	380.9	18.6	70.6	64.3	91.1	417.9	133.3	31.9	9.2	8.0	
PCH-RC-047	6.0	7.0	1870.7	333.8	17.8	298.2	105.7	35.5	425.8	109.8	25.8	38.7	13.1	33.8
PCH-RC-047	7.0	8.0	2224.2	212.8	9.6	132.1	70.2	53.2	417.7	66.7	16.0	18.5	8.1	43.7
PCH-RC-050	3.0	4.0	1059.0	307.6	29.0	117.1	94.1	80.4	245.6	97.9	39.9	16.3	11.9	73.4
PCH-RC-050	4.0	5.0	1262.0	229.2	18.2	160.0	82.4	51.5	218.0	69.1	31.7	21.1	8.7	41.3
PCH-RC-050	5.0	6.0	1236.2	294.2	23.8	149.9	98.9	65.9	276.6	91.2	33.0	19.5	12.5	64.1
PCH-RC-051	4.0	5.0	9259.6	560.1	6.0	215.0	60.7	28.2	2042.7	218.6	10.7	41.1	8.1	19.6
PCH-RC-051	5.0	6.0	17538.4	617.5	3.5	422.1	70.7	16.7	3698.9	242.0	6.5	73.0	9.3	12.8
PCH-RC-051	7.0	8.0	7110.6	630.8	8.9	202.9	91.2	44.9	1557.1	220.0	14.1	31.1	10.4	33.4
PCH-RC-060	2.0	3.0	3001.4	393.6	13.1	122.1	49.8	40.8	631.5	106.8	16.9	20.6	5.9	28.7
PCH-RC-066	8.0	9.0	39881.2	637.6	1.6	1299.9	302.9	23.3	8089.2	126.7	1.6	166.9	20.1	12.0



## Auger Drilling and Assaying Update on New Targets

- The New IAC zones identified (Merope, Taygeta, Maia and Electra) were drilled using auger and assayed to test the grades and desorption result.
- There is potential for an additional 265 million tonnes of material.
- Desorbability results were conducted using Ammonium Sulfate at 0.5M, pH4, for 20 minutes.





## **Auger Drilling Overall New Targets Results**

• Taygeta Target overall recoveries: 33.85% TREO, 34.48% HREO, 60.10% NdPr and 37.34% DyTb. • Merope Target overall recoveries: 28.99% TREO. 44.23% HREO, 34.96% NdPr and 43.93% DyTb. • Maia Target overall recoveries: 34.03% TREO, 47.37% HREO, 68.98% NdPr and 49.63% DyTb. •Electra Target overall recoveries: 11.33% TREO, 28.53% HREO, 15.05% NdPr and 22.58% DyTb.

#### Overall average sample results from all auger holes interval tested by target

		Sample	e Grade			Desorbe	ed Grade		Recovery						
TARGET	GET TREO HREO NdPr DyTb ppm ppm ppm ppm ppm		NdPr	DyTb	TREO	HREO	NdPr	DyTb	TREO	HREO	NdPr	DyTb			
			ppm	ppm	ppm	ppm	ppm	%		%	%				
Taygeta	917.66	242.11	159.25	25.76	310.59	83.48	95.71	9.62	33.85	34.48	60.10	37.34			
Merope	794.05	301.72	130.03	31.64	230.22	133.46	45.46	13.9	28.99	44.23	34.96	43.93			
Maia	600.75	131.04	103.1	16.02	204.44	62.08	71.12	7.95	34.03	47.37	68.98	49.63			
Electra	924.58	172.09	175.46	21.21	104.78	49.09	26.4	4.79	11.33	28.53	15.05	22.58			

\*Total Rare Earth Oxides: TREO = Y2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Lu2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 \* Heavy Rare Earth Oxides: HREO = Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3

\*NdPr = Nd2O3+Pr6O11

\*DyTb = Dy2O3+Tb4O7

\*Element to Oxide Conversion Factor - Cerium CeO2 1.2284,, Dysprosium Dy2O3 1.1477, Erbium Er2O3 1.1435, Europium Eu2O3 1.1579, Gadolinium Gd2O3 1.1526, Holmium Ho2O3 1.1455, Lanthanum La2O3 1.1728, Lutetium Lu2O3 1.1371, Neodymium Nd2O3 1.1664, Praseodymium Pr6O11 1.2082, Samarium Sm2O3 1.1596,, Terbium Tb4O7 1.1762, Thulium Tm2O3 1.1421, Yttrium Y2O3 1.2699, Ytterbium Yb2O3 1.1387

\* ppm=parts per million and D=the desorbed Amount

\* Desorbability results were conducted using Ammonium Sulfate at 0.5M, pH4 or pH2, for 20 minutes.

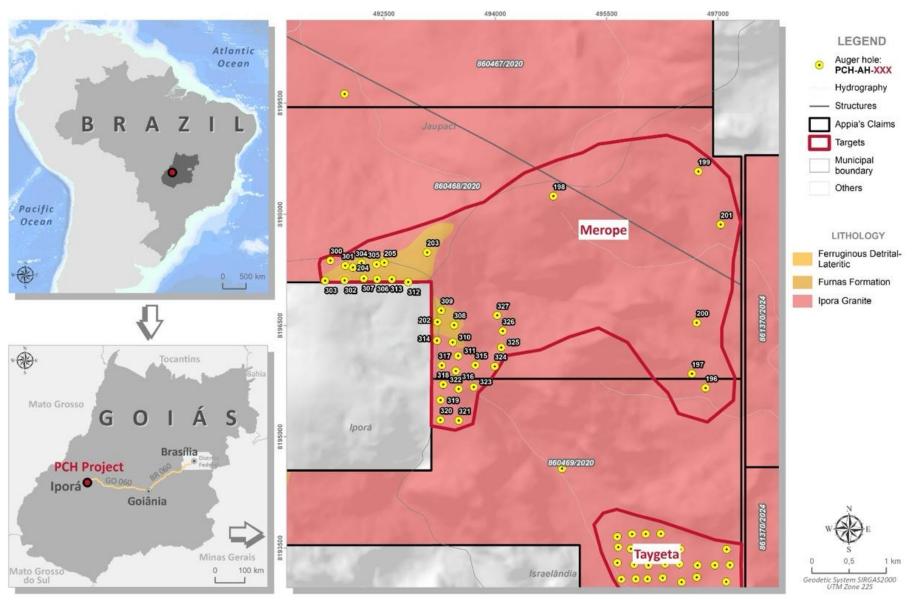
#### **Overall target average desorption recoveries from intervals by rare earth element**

Target	La	Ce	Pr	Nd	Sm	Eu	Gd	Dy	Tb	Но	Er	Tm	Yb	Lu	Y
Taygeta	54%	6%	51%	52%	46%	42%	44%	29%	32%	25%	22%	18%	16%	15%	29%
Merope	33%	5%	33%	35%	32%	35%	34%	28%	29%	26%	25%	21%	19%	18%	29%
Maia	37%	5%	45%	51%	49%	48%	44%	37%	39%	34%	33%	31%	28%	26%	35%
Electra	12%	3%	12%	14%	14%	16%	17%	16%	15%	17%	17%	16%	16%	15%	21%



## Merope

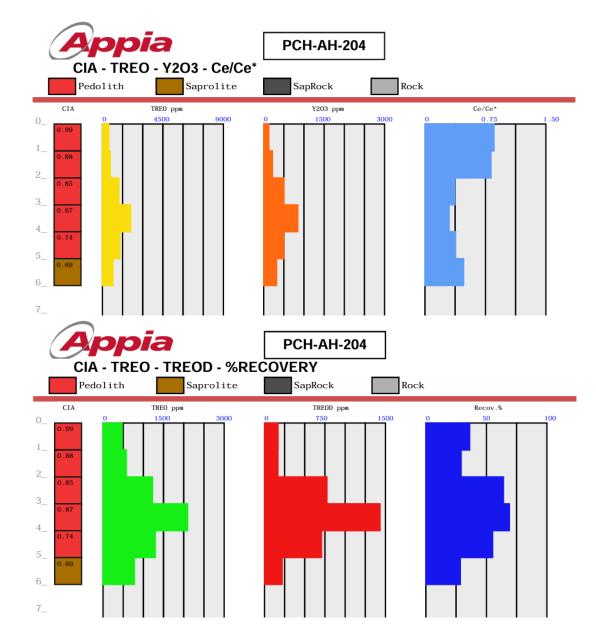
- The Merope target covers an area of 1,134 hectares.
- 80 million tonnes of additional potential
- The grade distribution signature found at depth in the auger drill holes is compatible with the pattern commonly found on IAC REE deposits.



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

### Merope

- Assay results showed high concentrations of Neodymium + Praseodymium and Dysprosium + Terbium associated with the boundary of Pedolith and saprolite.
- This is the main characteristic of an IAC REE mineralization.

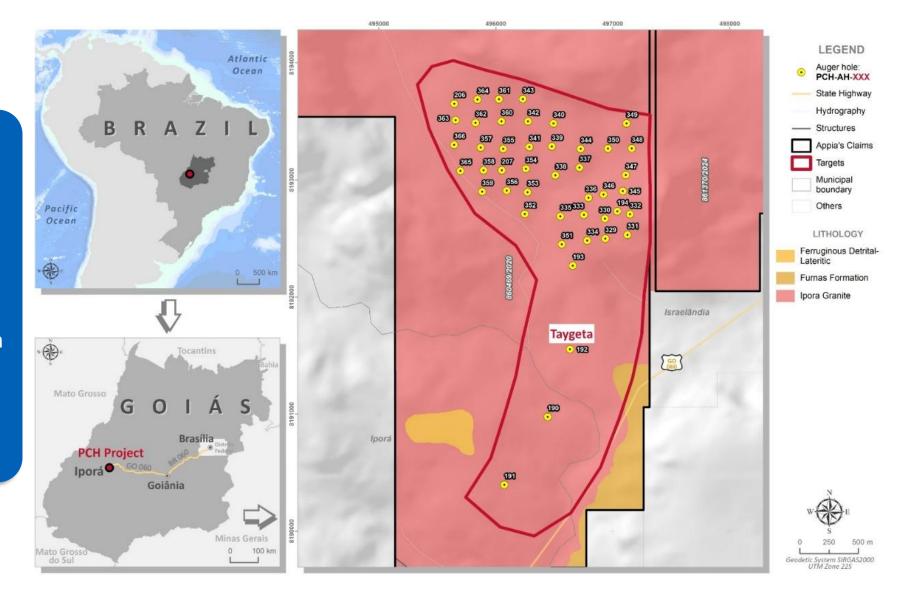




CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

## Taygeta

- The Taygeta target covers an area of 546 hectares.
- 50 million tonnes of potential material
- The grade distribution signature found at depth in the auger drill holes is compatible with the pattern commonly found on IAC REE deposits.





CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

Taygeta

 Assay results showed high concentrations of Neodymium
 + Praseodymium and Dysprosium + Terbium associated with the boundary of Pedolith and saprolite.

• This is the main characteristic of an IAC REE mineralization.

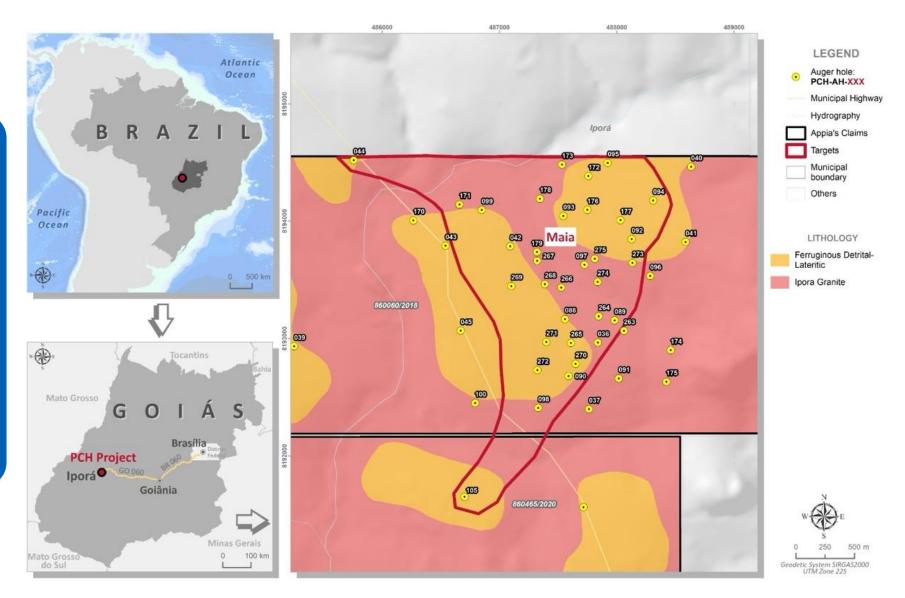
ppia PCH-AH-190 CIA - TREO - Y2O3 - Ce/Ce\* SapRock Pedolith Saprolite Rock CIA TREO ppm Y203 ppm Ce/Ce\* 1500 4500 9000 3000 0.75 0\_ -50  $1_{-}$ 2\_ 3\_  $4_{-}$ 5\_ 6 Appia **PCH-AH-190** CIA - TREO - TREOD - %RECOVERY Saprolite Pedolith SapRock Rock TREO ppm CIA TREOD ppm Recov.% 1500 750 1500 50 0 3000 1\_ 2\_ 3\_ 4\_ . 86 5\_ 6



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

## Maia

- The Maia target covers an area of 321 hectares.
- 100 million tonnes of potential material
- The grade distribution signature found at depth in the auger drill holes is compatible with the pattern commonly found on IAC REE deposits.

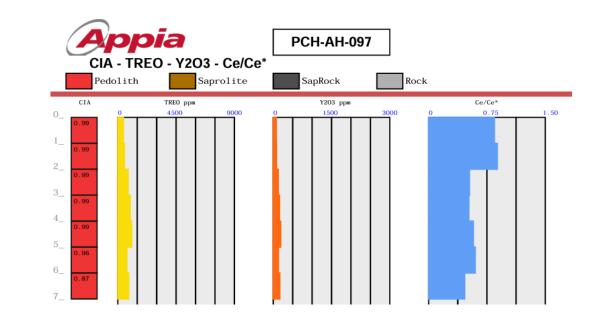


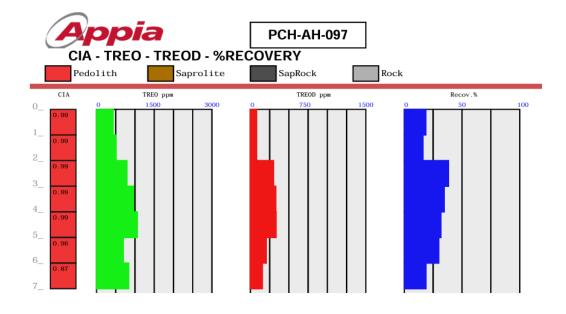


CSE: API OTCQX: APAAF FWB: A0I0 MUN: A0I0 BER: A0I0

Maia

- Assay results showed high concentrations of Neodymium + Praseodymium and Dysprosium + Terbium associated with the boundary of Pedolith and saprolite.
- This is the main characteristic of an IAC REE mineralization.



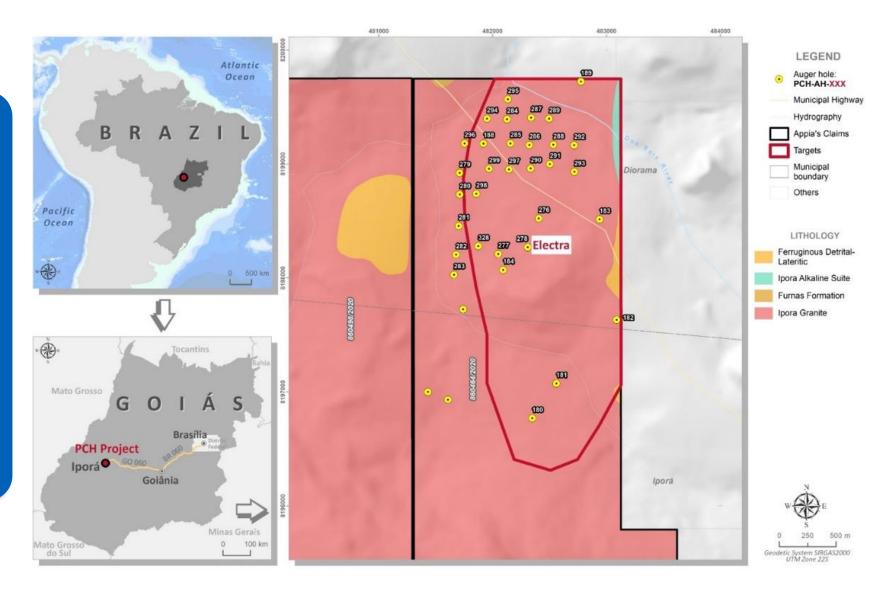




CSE: API OTCQX: APAAF FWB: A0I0 MUN: A0I0 BER: A0I0

## Electra

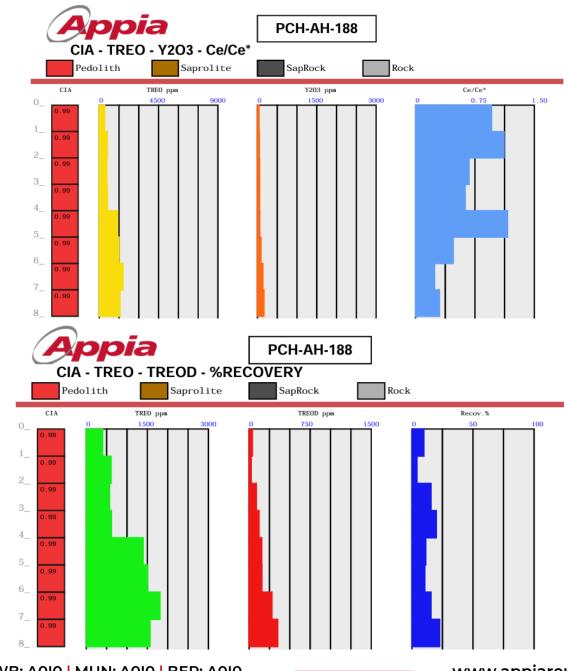
- The Electra target covers an area of 394 hectares.
- 35 million tonnes of potential materials.
- The grade distribution signature found at depth in the auger drill holes is compatible with the pattern commonly found on IAC REE deposits.





## Electra

- Assay results showed high concentrations of Neodymium + Praseodymium and Dysprosium + Terbium associated with the boundary of Pedolith and saprolite.
- This is the main characteristic of an IAC REE mineralization.





CSE: API OTCQX: APAAF FWB: A0I0 MUN: A0I0 BER: A0I0

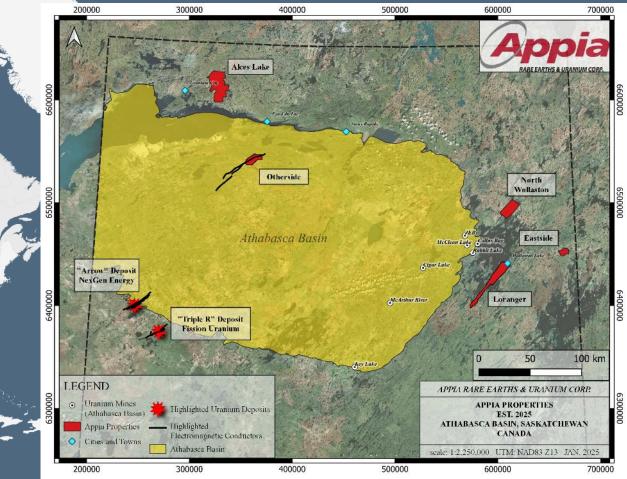
## PCH Chronogram and Budget

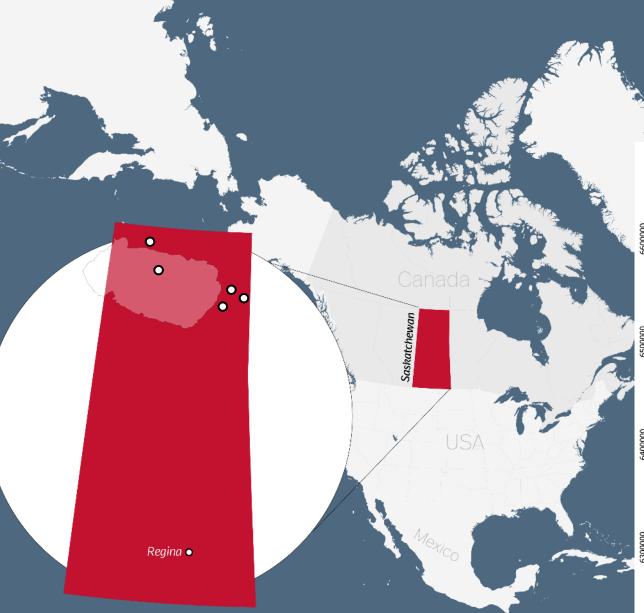
Total Budget of **US\$2,800,000.00** to develop the High-Grade Target and the New IAC Targets to a PEA Stage in 18 months.

A calification		Month															-	
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Auger Drilling+assay (3000m)	\$				255,	000.00												
DDH+assay (4000m)	\$	1,000,	,000.00															
RC Drilling+assay (3000m)				\$	705,	000.00												
Operational Cost		\$															240,	,000.00
NI-43101							\$				200,	,000.00						
PEA											\$						400,	,000.00



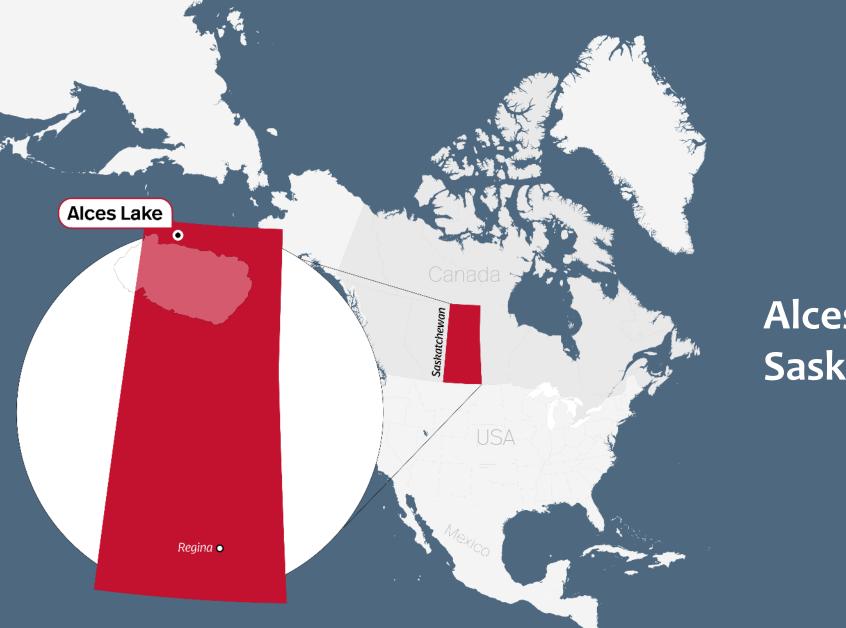
## Portfolio of Projects, Saskatchewan, Canada







CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0



## Alces Lake Project, Saskatchewan, Canada



CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

## Alces Lake REE Project: Overview

#### **Resource Characteristics:**

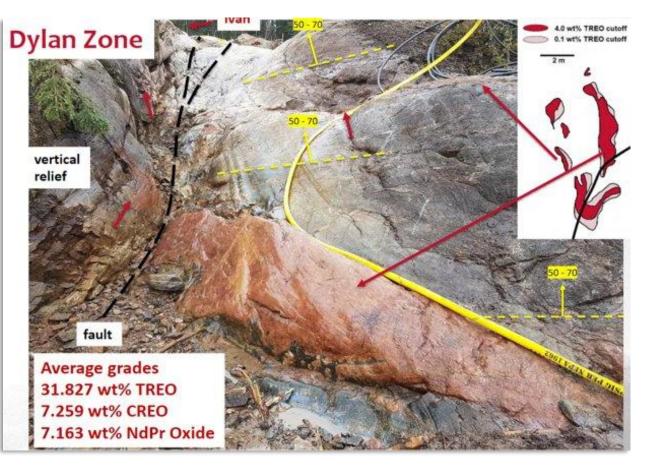
- World-class critical REE with grades up to 50% Total Rare Earths Oxide (TREO) plus gallium.
- Extensive high-grade monazite mineralization.
- Surface and near-surface showings/prospects of up to 80% coarse-grained monazite within pegmatites.
- Simple mineralogy metallurgical testing confirms processing potential like other producing mines.

#### **Exploration and Discoveries:**

- Multiple zones of REE discoveries along geological strike, on sub-parallel trends, and with sub-surface zones open in all directions.
- Recent work: 40 drill holes assessing two new zones, Jesse and the Alces Lake Fold. Expanding the previously discovered WRCB and Magnet Ridge zones.
- Planned work for 2025 diamond drilling campaign.

#### **Geographical and Regulatory Context:**

- Located in Saskatchewan's prolific Athabasca Basin: the "Most Attractive Mining Jurisdiction in Canada."
- Access to new REE processing facility at Saskatchewan Research Council facility in Saskatoon, Sask.



High-grade monazite outcrop WRCB zone, Alces Lake Saskatchewan



## Alces Lake REE Project: Overview

High-grade monazite outcrop WRCB zone range from 4.209 to 32.17 wt.% total rare earth oxide (TREO)

**2023** - Diamond drill results: **11 drill holes spanning 1,223 Metres completed** in southern extension of Magnet Ridge. Five drill holes showcased substantial mineralization intersections, with **widths up to 19 Metres**, **indicating a potential increase in grade and thickness.** Subsurface expansion of the Alces Lake Fold zone from surface samples reading up to **15.45 wt.% TREO**.

2022 - Diamond drill results: 17,481 Metres of diamond drilling reported 8.98m @ 9.46 wt.% TREO including 0.87 m @ 17.1 wt.% TREO in hole 22-WRC-024 at Wilson Zone & 12.13 m @ 0.33 wt.% TREO including 5.7 m @ 0.55 wt.% TREO from hole 22-WRC-016 at AMP Zone in a structural corridor.

2021 - Diamond Drill results: 21-WRC-015 hole at Wilson North intersected 9.38 metres of 17.53 wt% TREO from 15.22 m- 24.60 m, including 2.14 Metres of 32.17 wt% TREO with assays up to 37.92 wt% TREO

Exploration strategy covers priority zones, extending approximately **20 kilometres in length and 5 to 7 km in width.** 

Bench-scale monazite processing and metallurgical testing results comparable to other producing rare earth projects. Preliminary work done at the Saskatchewan Research Council (SRC) **achieved flotation concentrate TREO of 48% with 73% TREO recovery**. Improvements are expected from future testing.

**Permanent 35-person camp with year-around accessibility and promoting** Work, Resources, and Employment Expansion for the Local First Nations Community of Fond-du-Lac

High-grade monazite outcrop WRCB zone, Alces Lake Saskatchewan





# **Alces Lake REE Project:** Current Exploration – Gravity Drill Targets

#### **Survey Overview:**

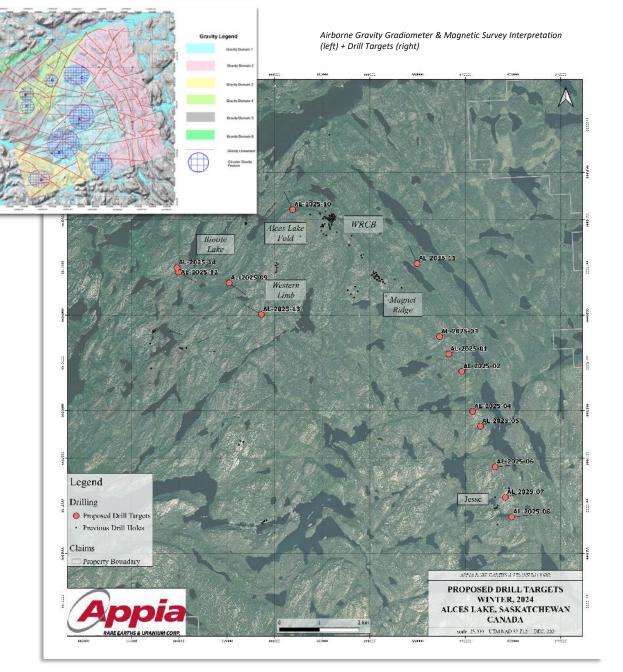
- Airborne Gravity Gradiometer (AGG) & Magnetometer Survey
- Conducted by Xcalibur Smart Mapping June 14, 2024
- Objective: Identify new REE-rich monazite targets

#### **Key Findings:**

- Mapped subsurface lithology & structures aiding REE mineralization
- AGG & Magnetic Data highlight shear zones, faults, and high-density anomalies
- Identified six major gravity domains with strong mineral potential
- Correlated with past WRCB & Magnet Ridge discoveries

#### 2025 Drill Plan:

- 14 drill holes targeting newly interpreted geophysical structures
- Focus on NNW-SSE regional shear zone
- Planned drill depths 300m 500m





## SRC REE Processing Facility: Saskatoon, Saskatchewan, Canada

#### Landmark Initiative

In August 2020, the Saskatchewan Research Council (SRC), a Provincial Crown Corporation, and the Government of Saskatchewan unveiled ground-breaking plans to finance and establish a unique Rare Earths Processing Facility in Saskatoon, Canada. This strategic move represents a pioneering effort to enhance rare earths processing capabilities and foster regional economic growth.

#### SRC: A Research Powerhouse

As Canada's second-largest research and technology organization, SRC boasts a global footprint, serving 1,600 clients across 22 countries. This extensive reach positions SRC as a leading force in driving innovation and research in various sectors.

#### Monazite Processing Expertise

Leveraging existing pilot facilities, SRC has already achieved significant milestones in rare earths processing. By optimizing a monazite processing flow sheet, SRC's facilities have successfully processed monazite sourced from Appia's Alces Lake project. This achievement underscores the practical application of research outcomes in advancing rare earths processing technologies.



SRC Rare Earth Element Extraction Lab

The processing facility is expected to be operational in 2024



CSE: API OTCQX: APAAF FWB: A0I0 MUN: A0I0 BER: A0I0



## Otherside Uranium Project, Saskatchewan, Canada



CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

## **Otherside Uranium Project:**

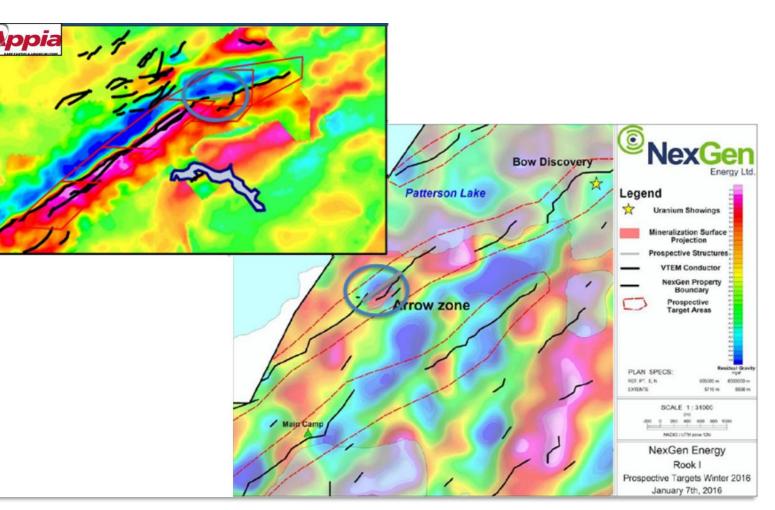
## **Property Overview**

#### **Otherside is a High-Potential Property:**

- Massive, untapped, 49 km electromagnetic conductor, significantly larger than many conductors associated with major Athabasca Basin uranium deposits.
- Similar geophysical characteristics like other highgrade uranium deposits in northern Saskatchewan.
- Signal indicators for deep-seated structural bends and faults providing ideal fluid pathways for uranium mineralization, like NexGen's Arrow and Fission's Triple R deposits.

**Proven Geophysical Indicators of Uranium Deposits:** 

- Gravity Low Anomalies: Indicate hydrothermal alteration, a key factor in uranium deposition.
- Magnetic Low Anomalies: Suggest alteration zones often linked with high-grade uranium deposits.
- EM Conductors: Known to host world-class uranium deposits due to their fluid-trapping potential.



Comparison of Appia's Otherside property and NexGen Energy Ltd.'s "Arrow" deposit showcasing similarities in structurally bent and faulted EM conductor relating to uranium deposition. Source: NexGen Energy Ltd. Corporate Presentation - 2016



CSE: API OTCQX: APAAF FWB: A0I0 MUN: A0I0 BER: A0I0

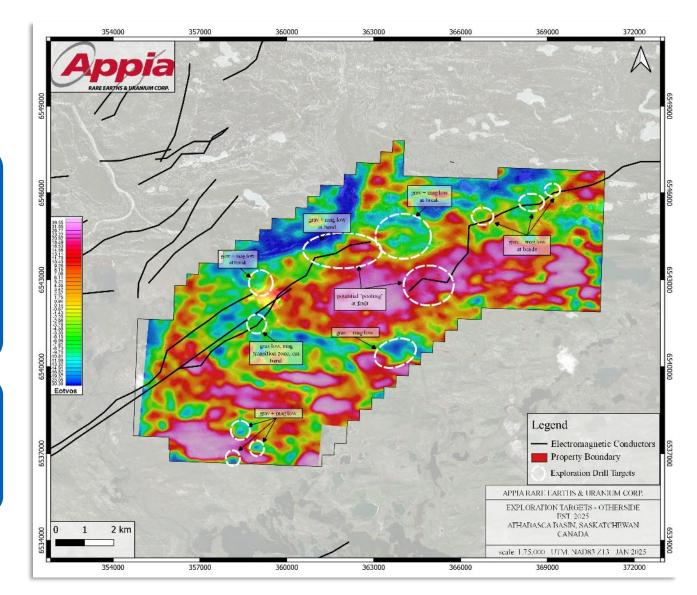
## **Otherside Uranium Project:** Exploration Strategy

#### **Methods Used for Drill Targeting:**

- Adopting the Basin uranium exploration model to target zones for high-grade uranium deposits.
- Identifying gravity low anomalies that may indicate alteration halos, suggesting zones of uranium mineralization.
- Detecting magnetic low anomalies where clay-rich alteration may lie.
- **Combining** these geological anomalies with the large, faulted electromagnetic (EM) conductor, enhancing the likelihood of discovering uranium along fluid pathways and "pooling" zones.

#### Strategic Exploration Plan for 2025:

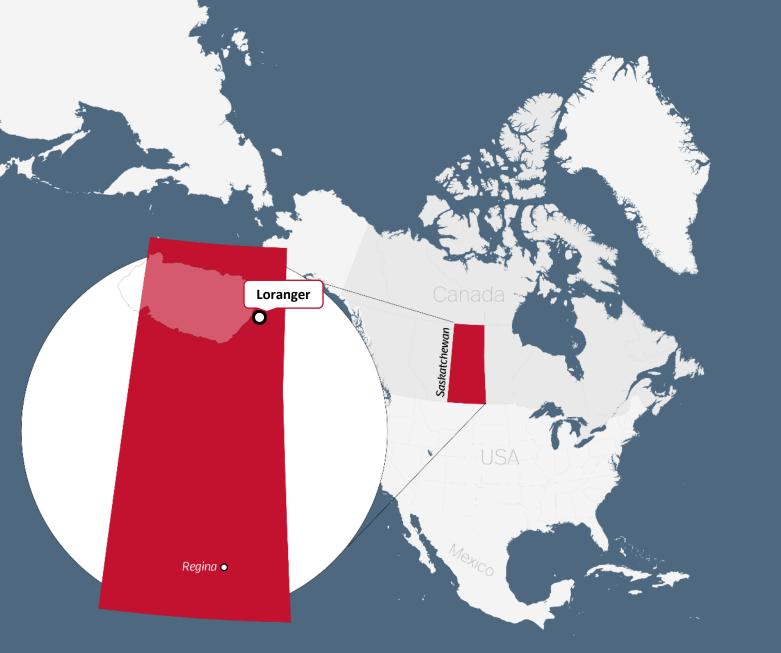
- Advanced 3D data processing to map subsurface layout.
- Ground geophysics to refine anomalies from the 2024 AGG & Magnetic survey.
- Spring 2025 diamond drilling to test the most prospective targets.



2025 exploration targets using results from the FALCON Airborne Gravity Gradiometer (AGG) & Magetic Survey flown by Xcalibur Smart Mapping.



CSE: API OTCQX: APAAF FWB: A0I0 MUN: A0I0 BER: A0I0

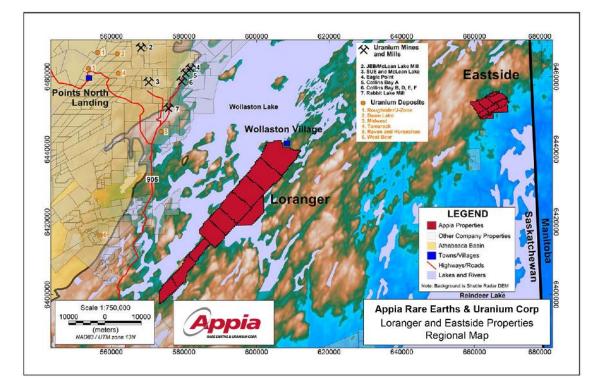


# Loranger Uranium Project, Saskatchewan, Canada



CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

## Loranger Uranium Project: Athabasca Basin Area, Saskatchewan, Canada

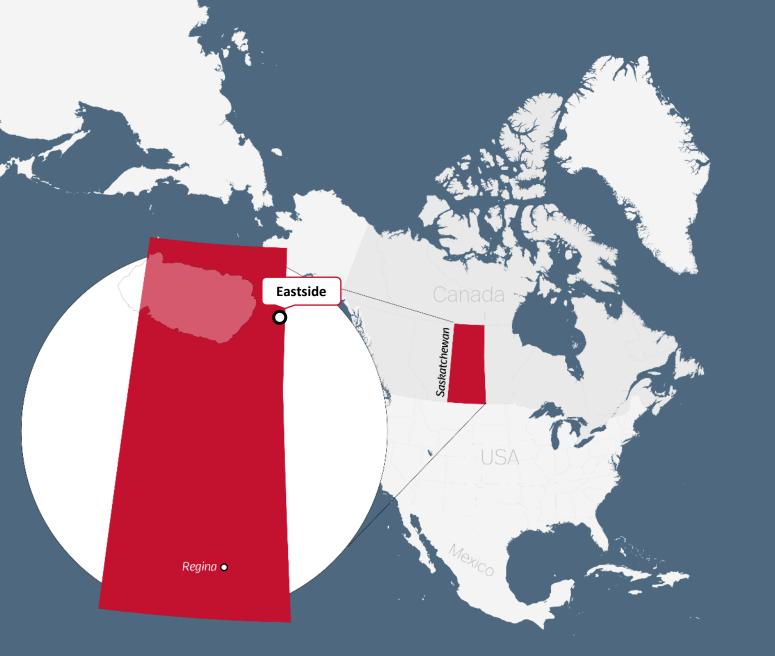


The property is situated within the Eastern Wollaston Domain, next to the Western Wollaston Domain & Wollaston-Mudjatik Transition Zone (WMTZ), which is renowned for hosting over **1 billion pounds of high-grade U\_3O\_8.** 

### **Project Highlights:**

- June 2024 diamond drilling program tested 3 conductors and resulted in new uranium and rare earth discoveries while following up 2017 and 2019 exploration programs.
- Previous drilling campaigns covered 4,630.8 metres across 34 drill holes
- Up to 0.34 wt% U3O8 has been uncovered through previous exploration in the core drill-zone.
- Uranium exploration at Loranger boasts surface rights of approximately 26,408.8 hectares, measuring 57 km by 9 Km.
- Exploration in the Nuhenéné region will progress through a collaborative partnership with the Ya'thi Néné First Nations and local Wollaston residents.
- Appia's Athabasca Basin area properties are located near Cameco's Rabbit Lake uranium mill and Eagle Point mine operations.





# Eastside Uranium Project, Saskatchewan, Canada



CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

## Eastside Uranium & REE Project: Exploration Overview

#### **Resource Characteristics:**

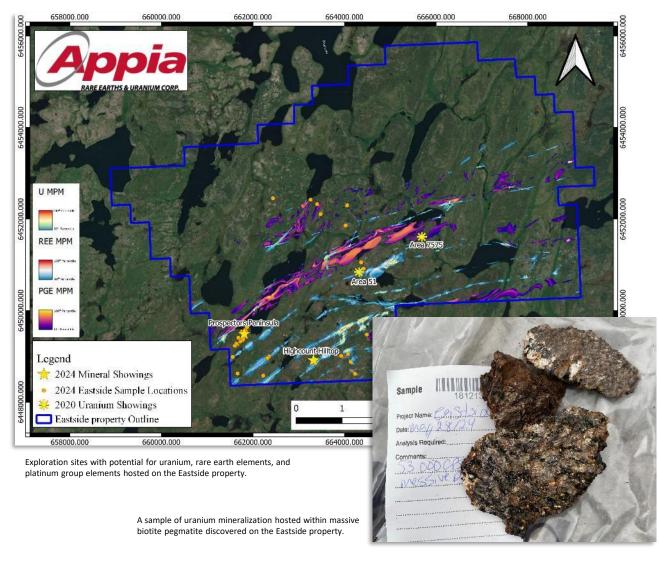
- Pegmatite-hosted uranium, rare earth element, and platinum group element (PGE) mineralization.
- Mineralogical sequence characteristic of sub-Athabasca highgrade basement-hosted uranium deposits.

#### **Exploration and Discoveries:**

- Host to two (2) generations of geologic exploration, including 1975 to 1980, and 2017 to present day.
- Multiple uranium and rare earth element samples discovered on the property.
- Ground prospecting samples revealed uranium concentrations of 2,523 ppm.

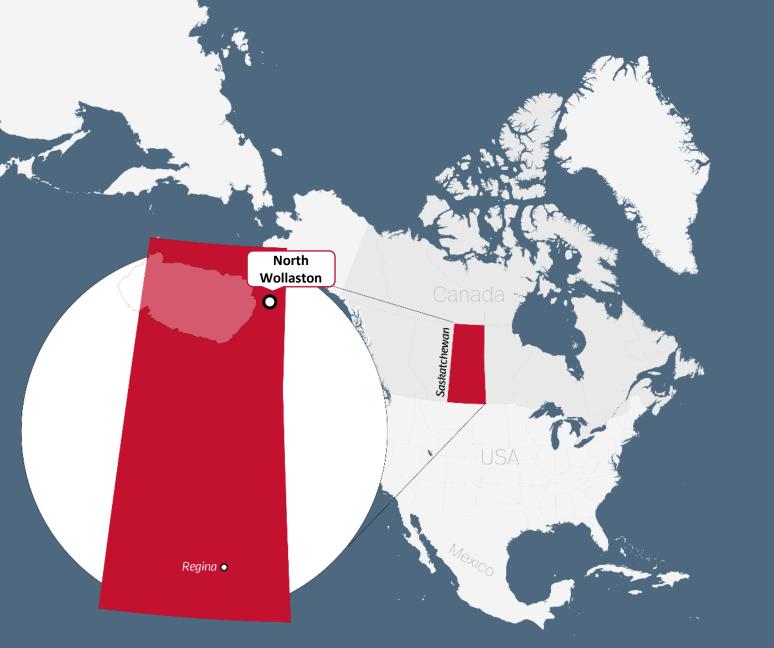
#### **Geographical and Regulatory Context:**

 Located in Saskatchewan's "Hearne Craton", host to several high-grade uranium mines, including McArthur River, Cigar Lake, and Key Lake.





CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0



# North Wollaston Uranium Project, Saskatchewan, Canada



CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

### North Wollaston Uranium Project: Exploration Overview

#### **Resource Characteristics:**

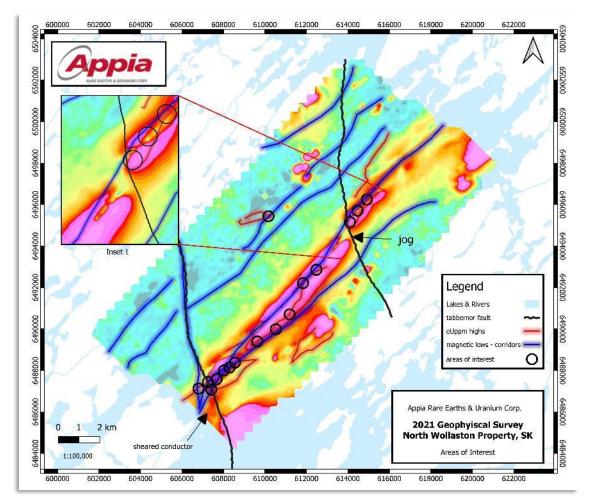
- Uranium and rare earth element mineralization hosted within structurally controlled pegmatite veins and pods.
- Geophysical methods like electromagnetic, magnetic, and gravity surveying are employed to detect alteration envelopes and geological structures that potentially lead to uranium mineralization.

#### **Exploration and Discoveries:**

- Substantial geological and geophysical exploration from 1978 to 1984 inclusive of ground prospecting, geophysical surveying, and diamond drilling.
- Numerous surface boulder clusters discovered with elevated
   U3O8 in range of hundreds to thousands of p.p.m.
- Deep graphitic faults within metapelitic gneiss suggesting potential for subsurface uranium deposits.

#### **Geographical and Regulatory Context:**

 Situated in Saskatchewan's "Wollaston-Mudjatik Transition Zone", an area renowned for hosting the province's uranium mining operations.

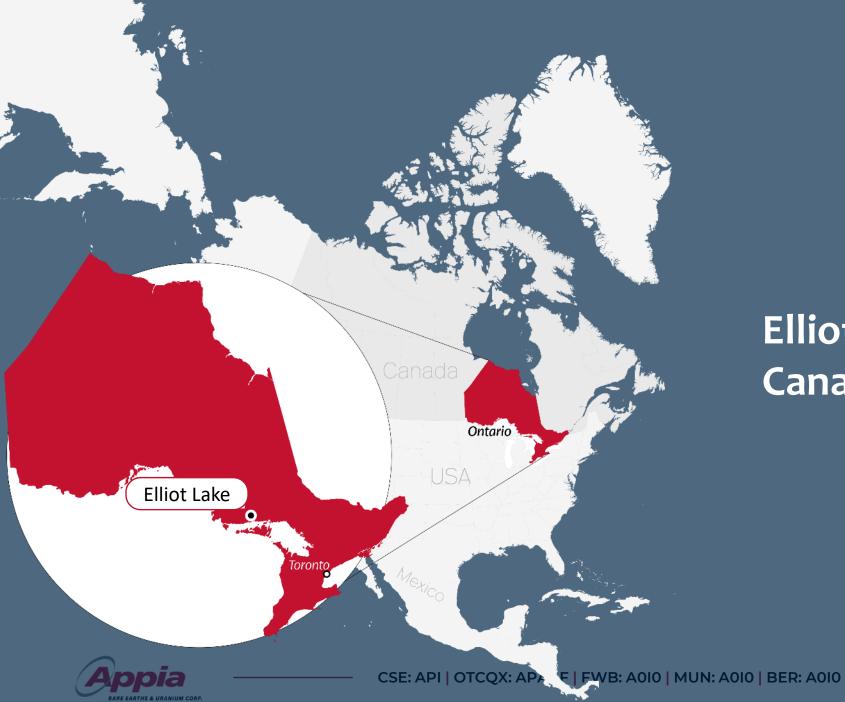


North Wollaston exploration sites of interest for potential uranium discovery based on surface uranium anomalies and magnetic/electromagnetic structural breaks.

Overlay map is an electromagnetic survey ( B-field Z component).



#### CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0



## Elliot Lake, Ontario, Canada

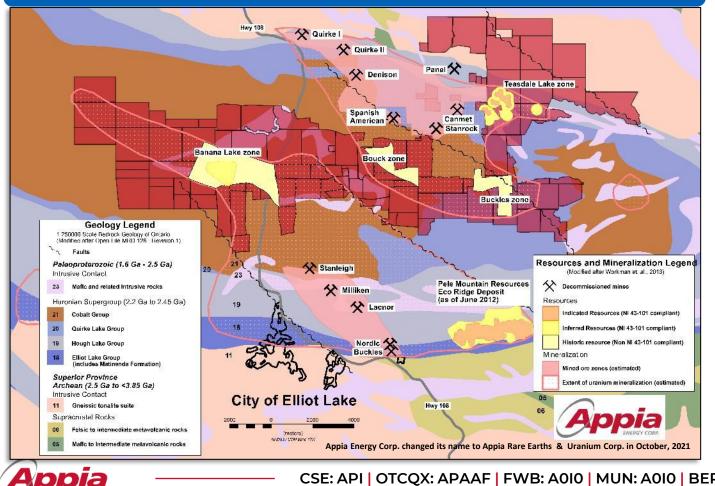
## **Elliot Lake Uranium & REE Projects**

Located in the historic mining camp of Elliott Lake, Ontario, Canada

RARE EARTHS & URANIUM CORP.

The Elliot Lake uranium-REE property comprises a group of 101 staked mineral claims, approximately 3 km north of the town of Elliot Lake.

Strong potential to increase the size of the current resources as they are largely unconstrained along strike and down dip.





CSE: API OTCQX: APAAF FWB: A0I0 MUN: A0I0 BER: A0I0

## Elliot Lake Uranium & REE Project: Ontario, Canada

#### **Ownership and Size:**

- Appia holds a 100% interest in the Elliot Lake property.
- The property spans approximately 13,008 hectares (32,143 acres).

#### **Strategic Location:**

• Adjacent to Denison Mines Corp. and Rio Algom Limited past-producing uranium and REE mines.

#### **Historical Significance:**

- The Elliot Lake camp has a rich history, having produced over 300 million lbs. of U3O8.
- Unique distinction as the only Canadian mining camp with significant historical commercial rare earth element production (yttrium).

#### **Exploration Potential:**

- Current resources show substantial potential for expansion.
- Resources are largely open along strike and at depth based on historical drilling data.

#### Metallurgical Testing:

- · Various process methods employed in metallurgical testing.
- Indications of a high recovery rate, approximately 90% for uranium and most REE falling in the 80% to 90% range.

#### **Geological Features:**

- Uranium and REE metals are hosted within quartz-pebble conglomerate beds.
- These beds are situated in the Matinenda Formation, the basal unit of the Elliot Lake Group.
- The uranium and REE-bearing horizon is characterized as a clean, well-sorted, coarse-pebble conglomerate.



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

### Elliot Lake Uranium & REE Project: Historical Mineral Resource Estimate (Non-Compliant

The Company holds a large ground position in Elliot Lake with a historical resource (non-compliant) totaling approximately 199 million lbs. of uranium at a grade of 0.76 lbs. U <sub>3</sub> O <sub>8</sub> /ton.									
Zone	Quantity (tons)	Grade (Ibs. U3O8/ton)	Contained U3O8 (Ibs.)						
Teasdale Lake	17,458,200	1.206	20,787,200						
Gemico Block #3	42,800,000	0.38	16,264,000						
Gemico Block #10	20,700,000	0.75	15,525,000						
Banana Lake Zone	175,800,000	0.76	133,608,000						
Canuc Zone	7,000,000	1.86	13,020,000						
Total	263,758,200	0.76	199,204,200						

#### Notes

- 1. The historical resource was not estimated in accordance with definitions and practices established for the estimation of Mineral Resources and Mineral Reserves by the Canadian Institute of Mining and Metallurgy ("CIM"), is not compliant with Canada's security rule National Instrument 43-101 ("NI 43-101"), and unreliable for investment decisions.
- 2. Neither Appia nor its Qualified Persons have done sufficient work to classify the historical resource as a current mineral resource under current mineral resource terminology and are not treating the historical resources as current mineral resources
- 3. Most of the historical resources were estimated by mining companies active in the Elliot Lake camp using assumptions, methods and practices that were accepted at the time, and based on corroborative mining experience.



CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0

## Elliot Lake Uranium & REE Project: NI 43-101 Mineral Resource Estimate

Indicated Resource			Inferred Resource						
	Tonnage (M Tons)	Average Grade (Ibs./ton)	Contained Metal U <sub>3</sub> O <sub>8</sub> (M lbs.)	Contained Metal TREE (M lbs.)	Tonnage (M tons)	Average Grade (Ibs./ton)	Contained Metal U <sub>3</sub> O <sub>8</sub> (M lbs.)	Contained Metal TREE (M lbs.)	
Teasdale Lake Zone									
U <sub>3</sub> O <sub>8</sub>	14.4	0.554	8.0		42.4	0.474	20.1		
TREE	14.4	3.30		47.7	42.4	3.14		133.2	
Banana Lake Zone									
U <sub>3</sub> O <sub>8</sub>					30.3	0.912	27.6		
Total for both zones									
Total	14.4		8.0	47.7	72.8		47.7	133.2	

#### 2013 NI 43-101 Mineral Resource Estimate

The NI 43-101 Indicated Mineral Resource for the Teasdale Lake Zone stands at 14,435,000 tons with a grade of 0.554 lbs  $U_3O_8$ /ton and 3.30 lbs TREE/ton, resulting in **a total of 7,995,000 lbs U\_3O\_8** and 47,689,000 lbs TREE. In the Inferred Mineral Resource category, the Teasdale Lake Zone comprises 42,447,000 tons, grading 0.474 lbs U3O8/ton and 3.14 lbs TREE/ton, **totaling 20,115,000 lbs U\_3O\_8** and 133,175,000 lbs TREE. Additionally, the Inferred Mineral Resource for the Banana Lake Zone is 30,315,000 tons, with a grade of 0.912 lbs U3O8/ton, resulting in **a total of 27,638,000 lbs U\_3O\_8**. The resources are largely unconstrained along strike and down dip. \*Refer to the NI 43-101 Mineral Resource Estimate page for qualifying notes regarding the Mineral Resource estimates, and individual element grades supporting the reported TREE results.



CSE: API | OTCQX: APAAF | FWB: A0I0 | MUN: A0I0 | BER: A0I0



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