



- Exploring for high-grade rare earth elements ("REEs"), gallium and uranium in the prolific Athabasca Basin area
- Ownership of historic uranium and REE mines at Elliot Lake

### Alces Lake High-Grade, Critical REE Property

- Some of the highest REE grades reported in the world and exposed at surface; **average zone high-grades range from 4.209 to 32.17 wt% total rare earth oxide ("TREO")**
- Two discoveries at Alces Lake (WRCB and Magnet Ridge) to make up initial NI 43-101 report. Timing subject to receipt of assay results and industry activity
- 2022 drilling discovered massive at or near surface REE zone on-trend 1.5 kilometres south-southeast of WRCB
- Diamond drilling has discovered numerous near-surface and shallow REE zones, less than 15 m from surface; i.e., **hole 21-WRC-014 returned 6.99 m @ 11.70 wt% TREO including 3.67 m @ 15.81 wt% TREO**
- In 2021, Appia completed 8,590 m of diamond drilling in 119 drill holes. Since starting in March 2022, Appia has completed 17,481 metres of diamond drilling (results pending) using new all-weather camp
- The WRCB discovery is open in all directions (3D space) and has been extended to approximately 280 m along strike length
- As of now, Appia has discovered low to high-grade REE mineralization intermittently over approximately 27 km<sup>2</sup> of Alces Lake claims. **Western Anomaly and Oldman add to WRCB area drilling inventory in 2022**
- The zones have **moderate to high concentrations of critical REEs** (neodymium (Nd), praseodymium (Pr), dysprosium (Dy) and terbium (Tb)) for use in high-strength permanent magnets, which account for between 20% and 25% of the total REEs
- Bench-scale **monazite processing and metallurgical testing results comparable to other producing global rare earth projects**. Preliminary work done at the Saskatchewan Research Council achieved TREO of 48% with 87% TREO. Improvements are expected from future testing
- Saskatchewan: consistently **"Most Attractive Jurisdiction in Canada"** for mining investment (2021 Fraser Institute Annual Survey of Mining Companies, Apr 14, 2022)



**Table 1 – Alces Lake Average High-Grade REO Summary Chart by Zone (2017-2020)**

Zone	DDH	La <sub>2</sub> O <sub>3</sub> (wt%)	CeO <sub>2</sub> (wt%)	Pr <sub>6</sub> O <sub>11</sub> (wt%)	Nd <sub>2</sub> O <sub>3</sub> (wt%)	Sm <sub>2</sub> O <sub>3</sub> (wt%)	Eu <sub>2</sub> O <sub>3</sub> (wt%)	Gd <sub>2</sub> O <sub>3</sub> (wt%)	Tb <sub>4</sub> O <sub>7</sub> (wt%)	Dy <sub>2</sub> O <sub>3</sub> (wt%)	Ho <sub>2</sub> O <sub>3</sub> (wt%)	Er <sub>2</sub> O <sub>3</sub> (wt%)	Yb <sub>2</sub> O <sub>3</sub> (wt%)	Lu <sub>2</sub> O <sub>3</sub> (wt%)	Y <sub>2</sub> O <sub>3</sub> (wt%)	ThO <sub>2</sub> (wt%)	U <sub>3</sub> O <sub>8</sub> (wt%)	TREO (wt%)	CREO (wt%)
Bell		2.394	5.156	0.538	1.647	0.232	0.003	0.137	0.008	0.027	0.003	0.009	0.001	0.000	0.083	1.309	0.038	10.239	2.223
Charles		2.289	4.716	0.527	1.631	0.220	0.003	0.128	0.007	0.022	0.003	0.007	0.001	0.000	0.067	1.182	0.036	9.621	2.190
Richard		1.894	4.070	0.449	1.511	0.212	0.003	0.095	0.008	0.022	0.002	0.004	0.001	0.000	0.065	1.094	0.030	8.335	1.992
Wilson		2.267	4.668	0.497	1.535	0.210	0.003	0.121	0.006	0.021	0.002	0.007	0.001	0.000	0.060	1.162	0.034	9.398	2.062
Dylan		7.407	15.841	1.719	5.444	0.708	0.010	0.407	0.020	0.066	0.008	0.021	0.001	0.000	0.174	3.842	0.100	31.827	7.259
Dante		3.794	8.310	0.868	2.999	0.414	0.005	0.215	0.014	0.036	0.004	0.008	0.001	0.000	0.096	2.209	0.056	16.763	3.922
Ivan		5.085	10.961	1.211	4.058	0.546	0.007	0.287	0.018	0.050	0.005	0.011	0.001	0.000	0.128	2.804	0.073	22.369	5.344
Ivan	IV-19-012	3.653	7.798	0.889	2.946	0.413	0.005	0.205	0.014	0.036	0.004	0.006	0.001	0.000	0.089	2.081	0.054	16.059	3.890
	including	11.233	23.833	2.753	8.996	1.258	0.016	0.626	0.042	0.110	0.011	0.019	0.002	0.001	0.266	6.365	0.164	49.165	11.918
Ermacre		0.908	1.965	0.239	0.821	0.128	0.001	0.059	0.005	0.017	0.002	0.004	0.002	0.000	0.057	0.506	0.012	4.209	1.084

Highlighting Nd grades associated with high-grade Total REOs

Highlighting Pr grades associated with high-grade Total REOs

Highlighting "High-Grade" Total and Critical REOs (i.e. >1.897 wt% TREO)

Indicates light rare earth elements

Indicates heavy rare earth elements

TREO = Total Rare Earth Oxide =

sum of La<sub>2</sub>O<sub>3</sub>+CeO<sub>2</sub>+Pr<sub>6</sub>O<sub>11</sub>+Nd<sub>2</sub>O<sub>3</sub>+Sm<sub>2</sub>O<sub>3</sub>+Eu<sub>2</sub>O<sub>3</sub>+Gd<sub>2</sub>O<sub>3</sub>+Tb<sub>4</sub>O<sub>7</sub>+Dy<sub>2</sub>O<sub>3</sub>+Ho<sub>2</sub>O<sub>3</sub>+Er<sub>2</sub>O<sub>3</sub>+Yb<sub>2</sub>O<sub>3</sub>+Lu<sub>2</sub>O<sub>3</sub>+Y<sub>2</sub>O<sub>3</sub>

CREO = Critical Rare Earth Oxide = sum of Pr<sub>6</sub>O<sub>11</sub>+Nd<sub>2</sub>O<sub>3</sub>+Eu<sub>2</sub>O<sub>3</sub>+Tb<sub>4</sub>O<sub>7</sub>+Dy<sub>2</sub>O<sub>3</sub>

Conditions used for reporting Composite Summary Grades:

- individual sample cutoff grade = 4.0 wt% TREO, max. internal dilution less than 2.0 m.

Ermacre results based on 1 grab sample

## Saskatchewan Uranium Properties

- Appia holds 4 properties totaling approximately 75,314.92 hectares (186,172.22 acres) in the Athabasca Basin area
- Loranger and N. Wollaston properties: Additional 2021 aerial geophysics (VTEM and radiometric). Loranger drilling is possible in winter/spring 2023 where known uranium mineralization is currently open along strike and at depth.

## Elliot Lake Uranium and REE Property

- 100% interest in the Elliot Lake property totaling approximately 13,008 hectares (32,143 acres)
- Elliot Lake Property is adjacent to Denison Mines Corp. and Rio Algom Limited past-producing uranium and REE mines
- Elliot Lake camp produced over 300 M lbs. U<sub>3</sub>O<sub>8</sub> and is the only mining camp in Canada with significant historical commercial rare earth element production (yttrium) which was recovered through bioleaching and conventional milling
- Significant potential to increase the size of the current resources as they are largely unconstrained along strike and at depth
- Metallurgical testing, using different process methods, indicates a recovery rate of approximately 90% for uranium and most REEs in the 80% to 90% range

**Table 2 – Elliot Lake Uranium and REE Resources**

NI 43-101 Mineral Resource Estimates*								
Indicated Resources					Inferred Resources			
Teasdale Lake Zone								
	Tonnage (M tons)	Average Grade (lbs./ton)	Contained Metal U <sub>3</sub> O <sub>8</sub> (M lbs.)	Contained Metal TREE (M lbs.)	Tonnage (M tons)	Average Grade (lbs./ton)	Contained Metal U <sub>3</sub> O <sub>8</sub> (M lbs.)	Contained Metal TREE (M lbs.)
U <sub>3</sub> O <sub>8</sub>	14.4	0.554	8.0		42.4	0.474	20.1	
REE	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	
<b>TOTAL</b>	<b>14.4</b>		<b>8.0</b>	<b>47.7</b>	<b>72.8</b>		<b>47.7</b>	<b>133.2</b>

\* "A Technical Report on the Appia Energy Corp. Elliot Lake Uranium-Rare Earth Property", by Watts, Griffis and McQuat Limited (July 30, 2013). Mineral resources are not mineral reserves and do not have demonstrated economic viability.

**Table 3 – Elliot Lake's Teasdale Lake Zone REE Resource Summary Chart**

Zone	Category	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)	Y (ppm)	TREE (ppm)	CREE (ppm)
Teasdale Lake	Indicated	422.0	745.0	73.8	247.0	41.1	1.7	26.2	3.2	14.3	2.3	5.8	0.8	4.6	0.7	59.4	1647.9	344.1
Teasdale Lake	Inferred	401.0	709.0	69.9	232.0	39.0	1.6	24.6	3.0	13.5	2.1	5.5	0.7	4.4	0.6	56.5	1563.4	323.9

TREE = Total Rare Earth Elements = sum of La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Yb+Lu+Y

CREE = Critical Rare Earth Elements = sum of Pr+Nd+Eu+Tb+Dy

The Teasdale Lake zone Uranium and Rare Earth Element Mineral Resource Estimate is effective as of July 30, 2013

The Banana Lake zone Uranium Mineral Resource Estimate is effective as of April 01, 2011



Mineral Resources were prepared from a polygonal model estimated at a cut-off value of \$100/tonne, using a uranium price of US \$70/lb. U<sub>3</sub>O<sub>8</sub>, a combined TREE price of \$78/kg, and a C\$:US\$ exchange rate of 1:0.9

A specific gravity (S.G.) of 2.85 tonnes/m<sup>3</sup> (or 3.14 tons/m<sup>3</sup>) was used

Indicated amounts may not precisely sum due to rounding

The quantity and grade of reported Inferred Resources are uncertain in nature and there has been insufficient exploration to define these as Indicated or Measured Mineral Resources

The Mineral Resources were estimated using the CIM Mineral Resources and Reserves Guidelines (December 11, 2015)

 Indicates light rare earth elements  
 Indicates heavy rare earth elements

## Officers and Directors

Anastasios (Tom) Drivas – CEO, Interim President & Director  
 Dr. Irvine R. Annesley, P.Geo. – Vice President Exploration  
 Frank van de Water, B.Com, CPA, CA – CFO & Director  
 Thomas Skimming, B.Sc., P.Geo., P.Eng. – Director  
 Brian E. Robertson, B.Sc., P.Eng., Grad. Dipl. Bus. Admin. – Director  
 Nick Bontis, B.A., Ph.D. – Director  
 Douglas H. Underhill Ph.D., MBA, CPG – Director  
 William R. Johnstone, L.L.B. – Legal Counsel & Director

## Capital Structure (as of Sept. 21, 2022)

Issued: (Insiders – approx. 30.1%) 123.1 million shares  
 Fully Diluted: 147.0 million shares  
 52 Week Range: \$0.28 - \$1.02 CAD  
 Share Price: \$0.47 CAD  
 Market Capitalization: \$57.9 million CAD  
 Cash on Hand: approx. \$4.3 million CAD  
 Cash Fully Diluted: \$21.8 million CAD

The information contained herein is provided solely for the reader's general knowledge and is not intended to be a comprehensive review of all matters and developments concerning Appia Rare Earths & Uranium Corp. 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 Mr. Thomas Skimming, P.Geo, P.Eng, a Director of Appia Rare Earths & Uranium Corp. and a Qualified Person as defined by NI 43-101 Standards.