



- Exploring for high-grade rare earth elements ("REEs"), gallium and uranium in the prolific Athabasca Basin area
- Ownership of historic uranium and rare earth 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")**
- Diamond drilling has discovered numerous near-surface and shallow REE zones, less than 15 m from surface; i.e., **hole 21-WRC-015 returned 9.38 m @ 17.3 wt% TREO including 21.14 m @ 32.17 wt% TREO**
- In 2021, Appia completed 8,076 m of diamond drilling in 100 drill holes. Since starting in March 2022, Appia has drilled 10,000m with plans for up to 20,000 m DDHs using all-weather camp
- The WRCB discovery is open in all directions (3D space) and has been extended to approximately 280m strike length
- Appia has discovered high-grade REE mineralization over approximately 27 km² of Alces Lake claims. **Western Anomaly and Oldman add to WRCB area drilling inventory in 2022**
- Massive potential REE discovery at Augier is 1.5 km SE of WRCB on a continuous km-scale geologic structure. It measures 300m x 175m with drilled width of 70m and no known boundaries. Current drilling focus - awaiting assay results from first holes.
- The zones have **uniformly 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 flotation of 48% with 87% and 78% TREO from 45% TREO flotation concentrate. Improvements are expected from future testing
- Saskatchewan: consistently **"Most Attractive Jurisdiction in Canada" for mining investment** (Fraser Institute)



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

Zone	DDH	La ₂ O ₃ (wt%)	CeO ₂ (wt%)	Pr ₆ O ₁₁ (wt%)	Nd ₂ O ₃ (wt%)	Sm ₂ O ₃ (wt%)	Eu ₂ O ₃ (wt%)	Gd ₂ O ₃ (wt%)	Tb ₄ O ₇ (wt%)	Dy ₂ O ₃ (wt%)	Ho ₂ O ₃ (wt%)	Er ₂ O ₃ (wt%)	Yb ₂ O ₃ (wt%)	Lu ₂ O ₃ (wt%)	Y ₂ O ₃ (wt%)	ThO ₂ (wt%)	U ₃ O ₈ (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 La₂O₃+CeO₂+Pr₆O₁₁+Nd₂O₃+Sm₂O₃+Eu₂O₃+Gd₂O₃+Tb₄O₇+Dy₂O₃+Ho₂O₃+Er₂O₃+Yb₂O₃+Lu₂O₃+Y₂O₃
 CREO = Critical Rare Earth Oxide = sum of Pr₆O₁₁+Nd₂O₃+Eu₂O₃+Tb₄O₇+Dy₂O₃
 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 projects totaling approximately 75,314.92 hectares (186,172.22 acres) in the Athabasca Basin area
- Loranger and N. Wollaston properties: Additional aerial geophysics (VTEM and radiometric) in 2021. Loranger drilling possible in winter 2022/23 where 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. U₃O₈ 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 ₃ O ₈ (M lbs.)	Contained Metal TREE (M lbs.)	Tonnage (M tons)	Average Grade (lbs./ton)	Contained Metal U ₃ O ₈ (M lbs.)	Contained Metal TREE (M lbs.)
U ₃ O ₈	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 ₃ O ₈					30.3	0.912	27.6	
TOTAL	14.4		8.0	47.7	72.8		47.7	133.2

* "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. U₃O₈, 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/m³ (or 3.14 tons/m³) 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 & Director
 Frederick Kozak, P.Eng, MBA, President
 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 June 10, 2022)

Issued: (Insiders – approx. 30.5 %) 121.5 million shares
 Fully Diluted: 142.2 million shares
 52 Week Range: \$0.35 - \$1.22 CAD
 Share Price: \$0.39 CAD
 Market Capitalization: \$47.4 million CAD
 Cash on Hand: approx. \$11 million CAD
 Cash Fully Diluted: \$26.5 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 Energy 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 Energy Corp. and a Qualified Person as defined by NI 43-101 Standards.